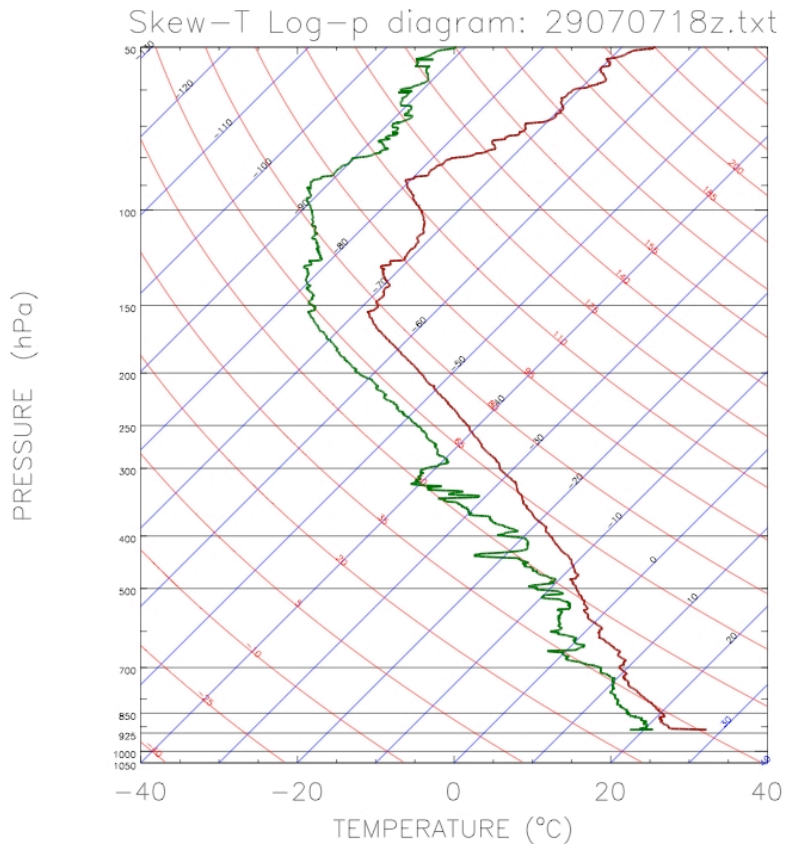


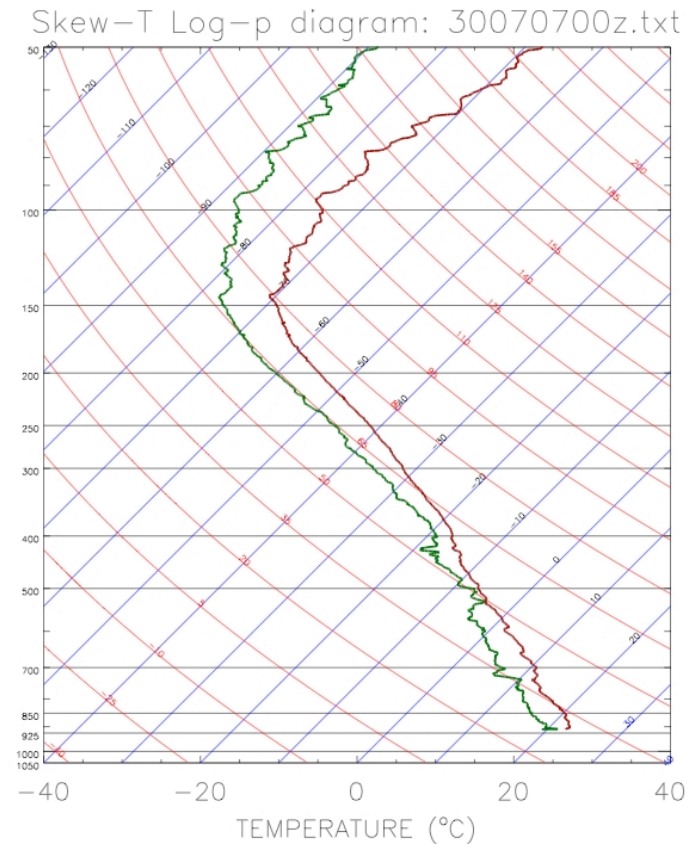
Weather Briefing, 20070730

Contributions from Chuck Bardeen, Berny Fallas, Randy Kawa, Lenny Pfister, Henry Selkirk and Marcela Ulate

TICOSONDE 18 UT 29 July and 00 UT 30 July

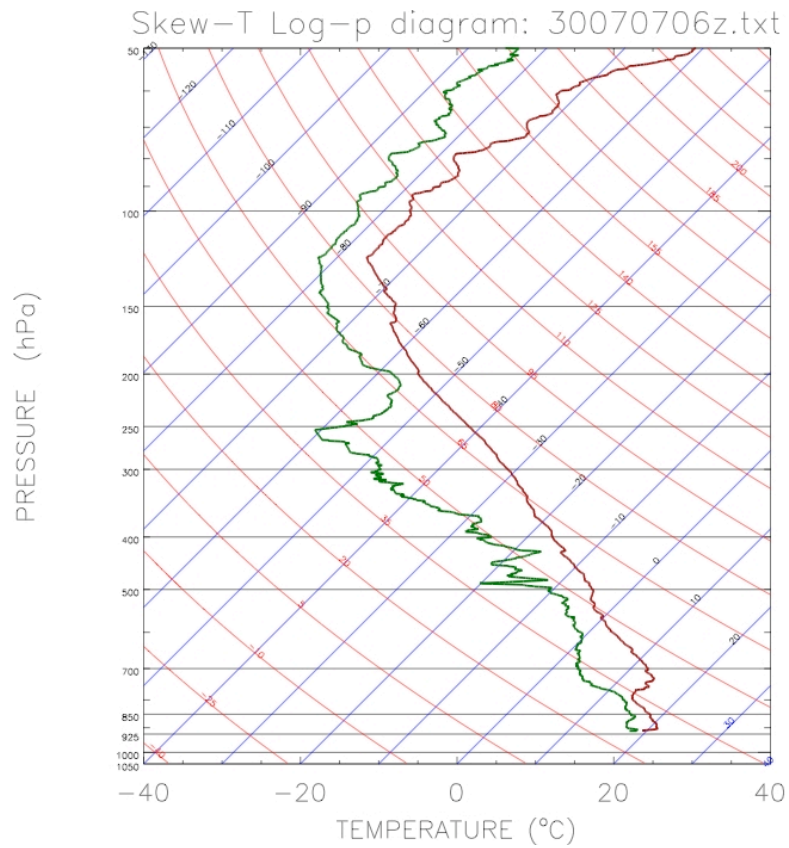


PW 42 mm, CAPE 1648

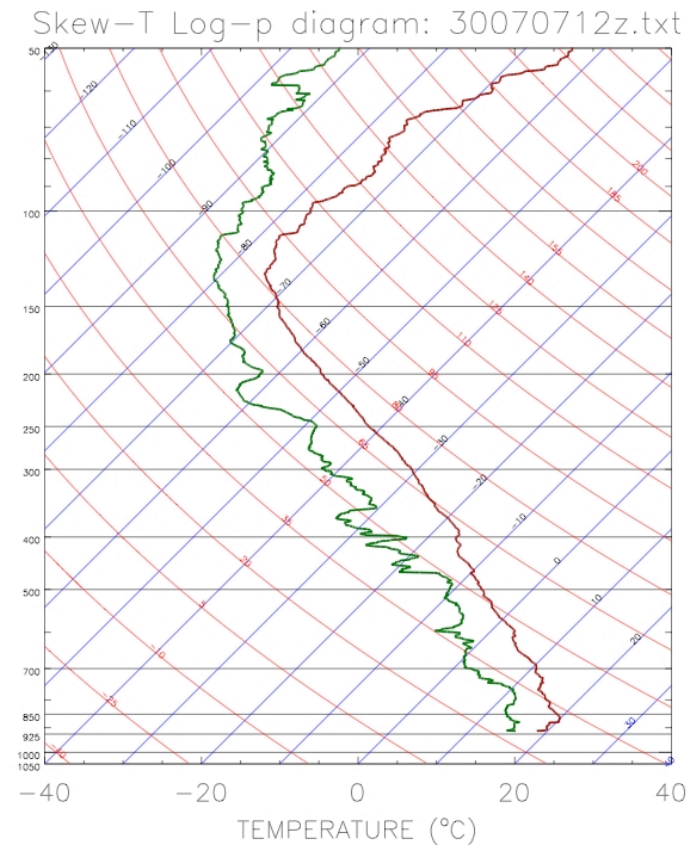


PW 43 mm, CAPE 1664

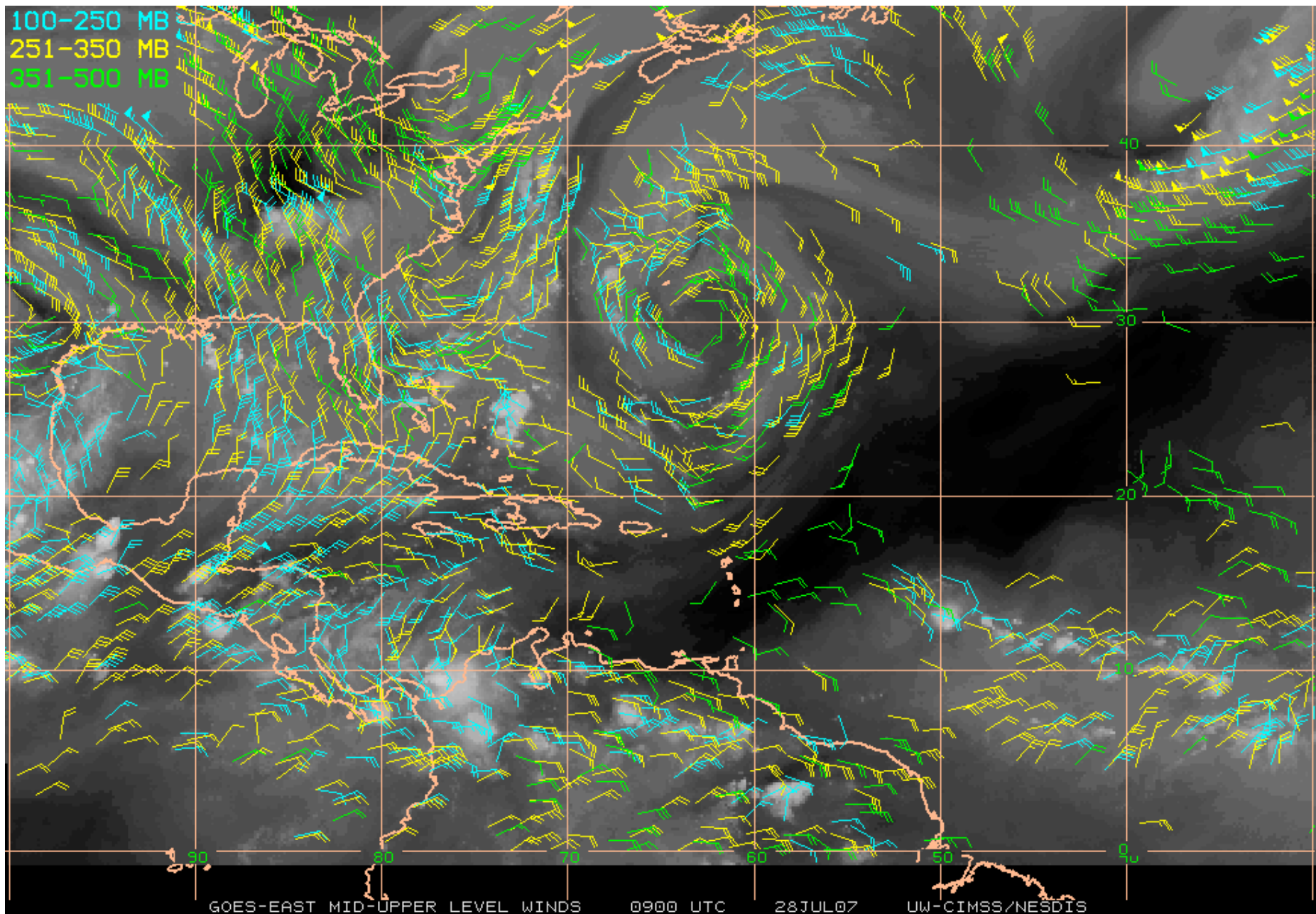
TICOSONDE 06 and 12 UT 30 July

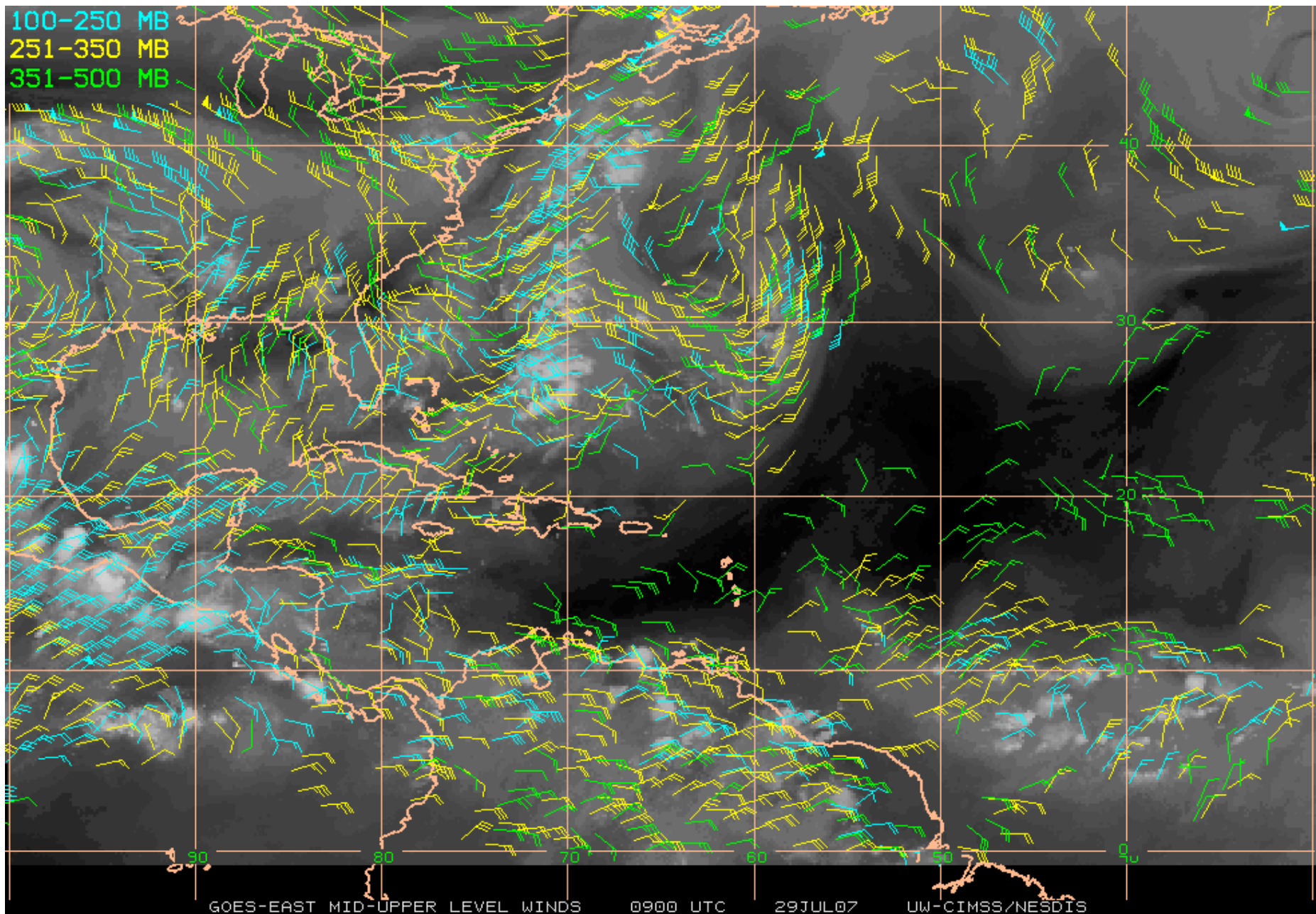


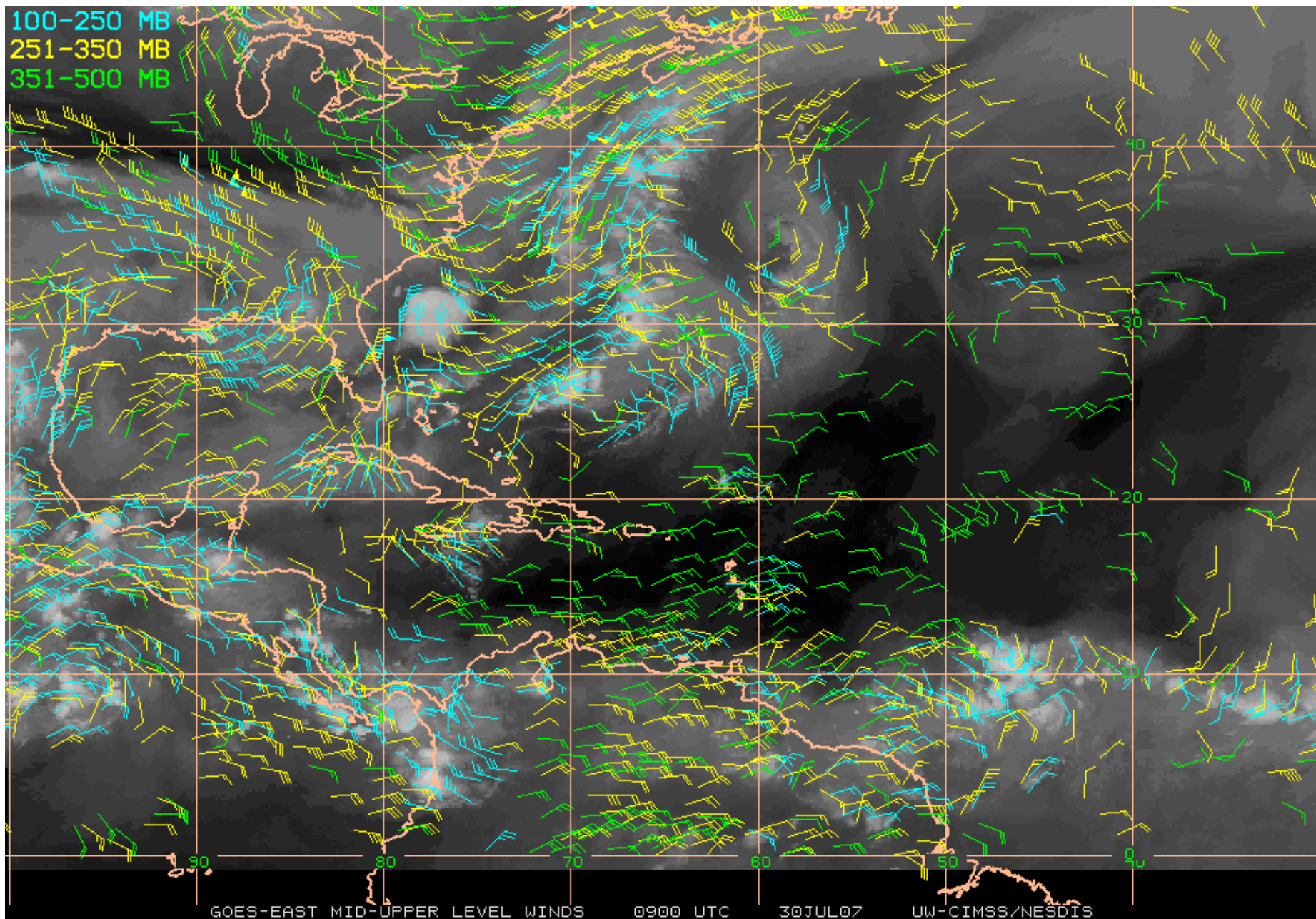
PW ~39 mm, CAPE 263



PW ~35 mm, CAPE 0







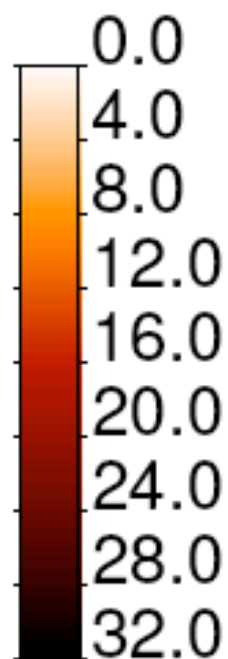
12 UTC on 30 July, 2007 at 200.0 mb

NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

6 hr fcst

Precipitation ()

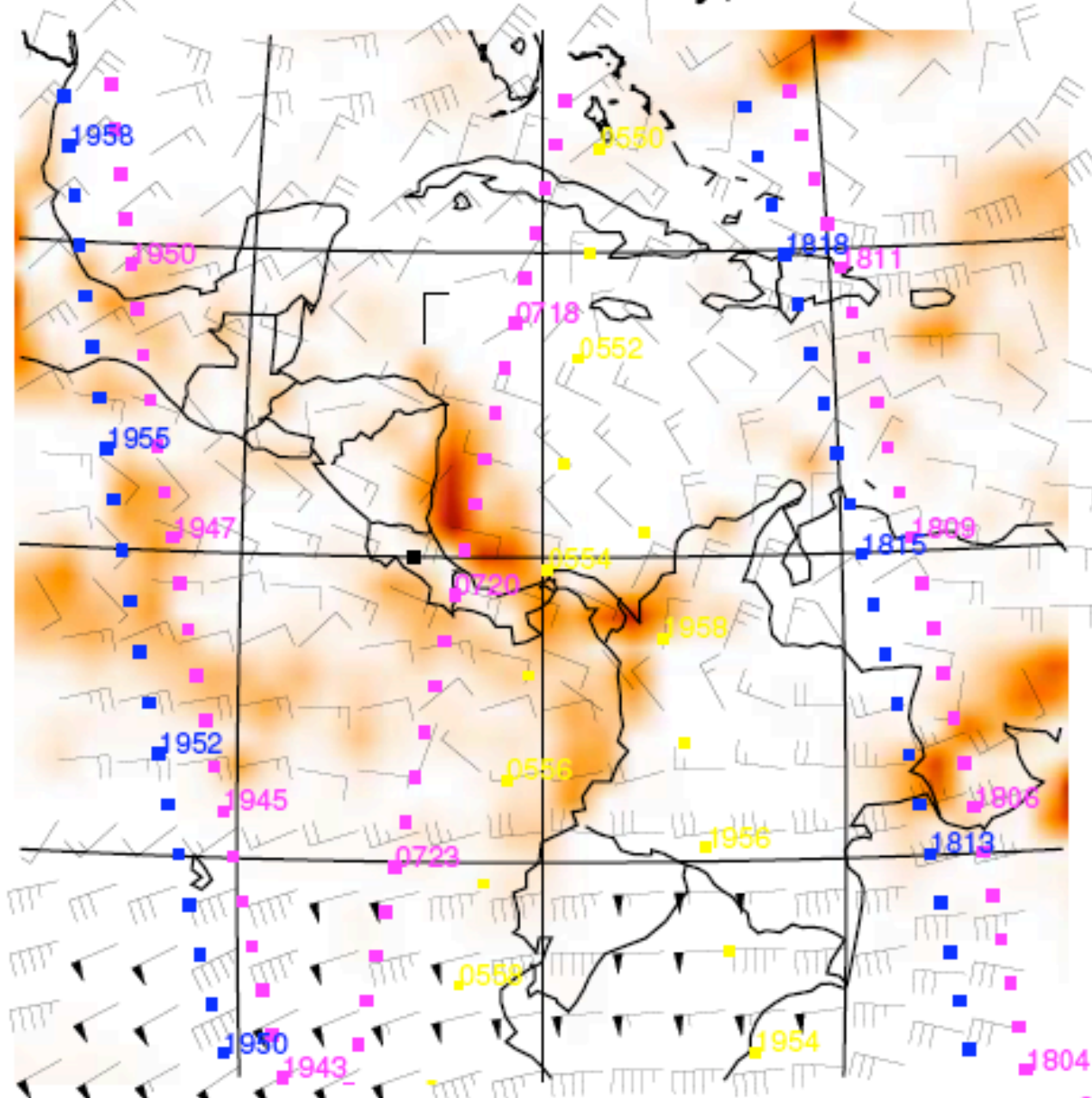


Winds (knots)

0729

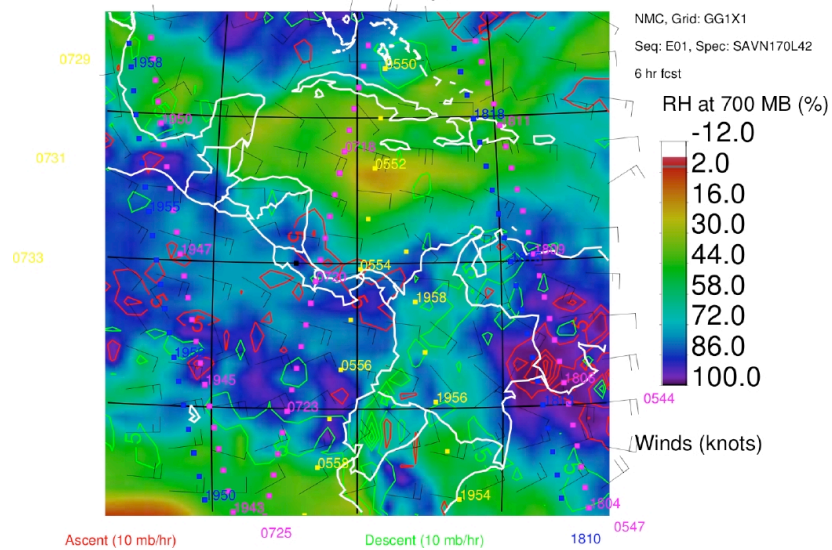
31

Trop (EPV=2.5)

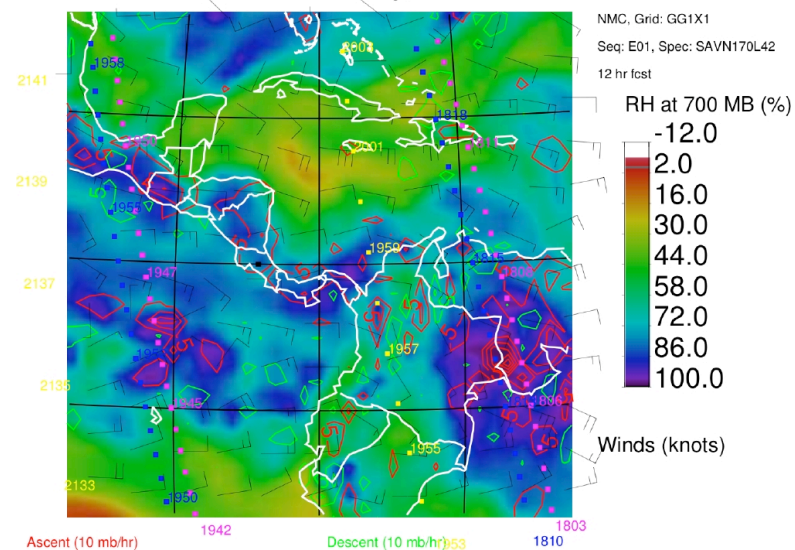


GFS RH 700: 12 UT 30 - 06 UT 31

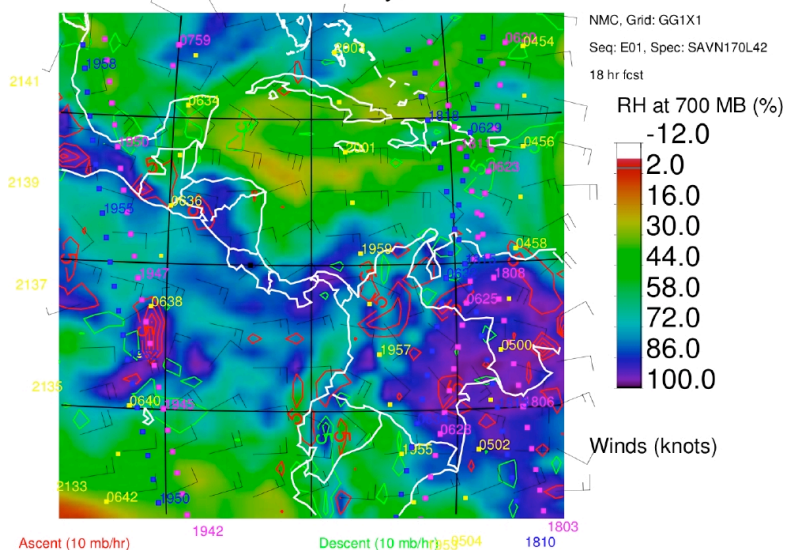
12 UTC on 30 July, 2007 at 700.0 mb



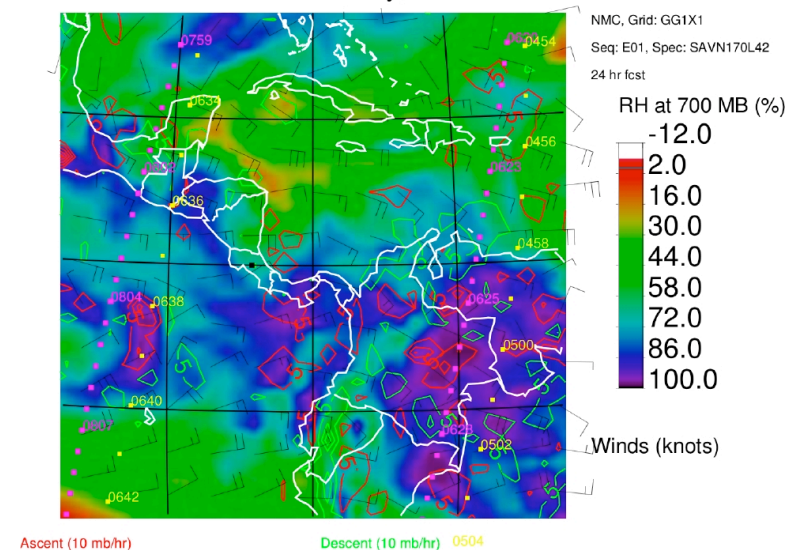
18 UTC on 30 July, 2007 at 700.0 mb



00 UTC on 31 July, 2007 at 700.0 mb

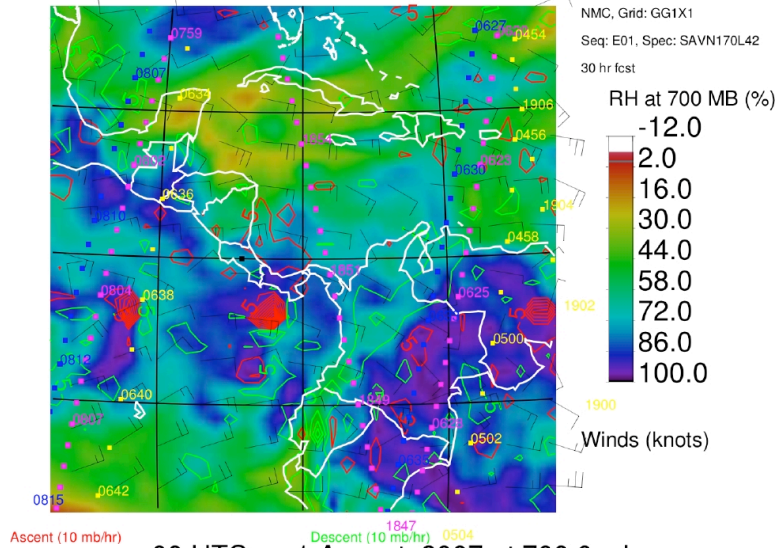


06 UTC on 31 July, 2007 at 700.0 mb

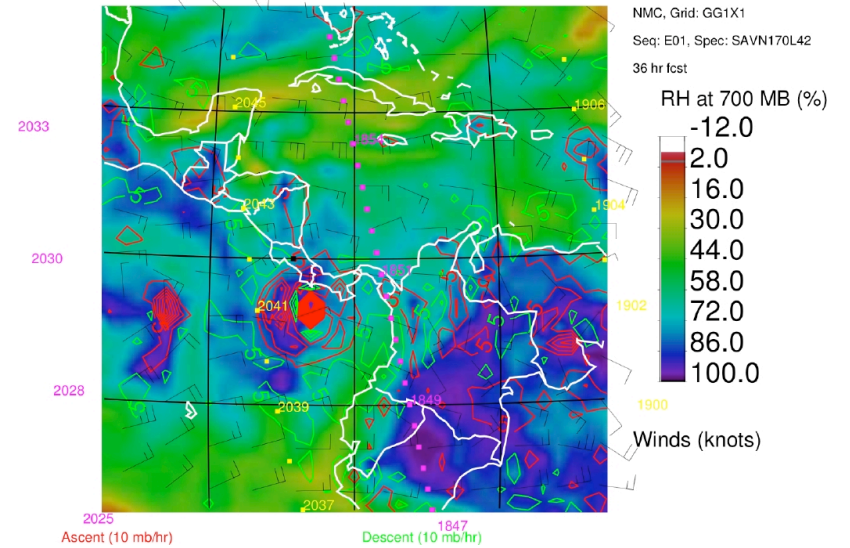


GFS RH 700: 12 UT 31 - 06 UT 01

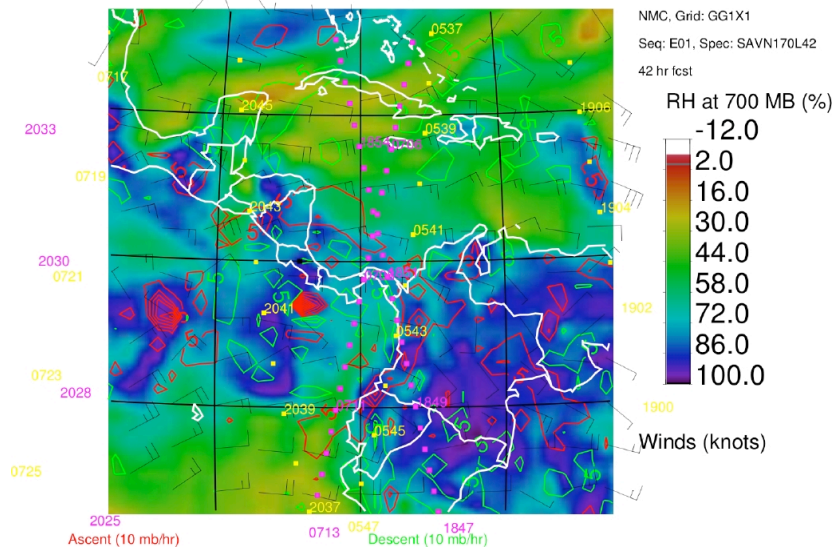
12 UTC on 31 July, 2007 at 700.0 mb



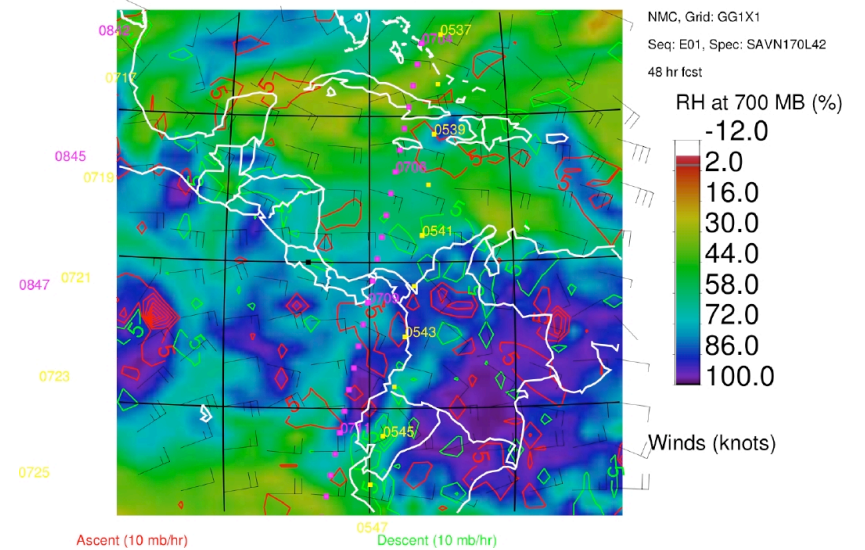
18 UTC on 31 July, 2007 at 700.0 mb



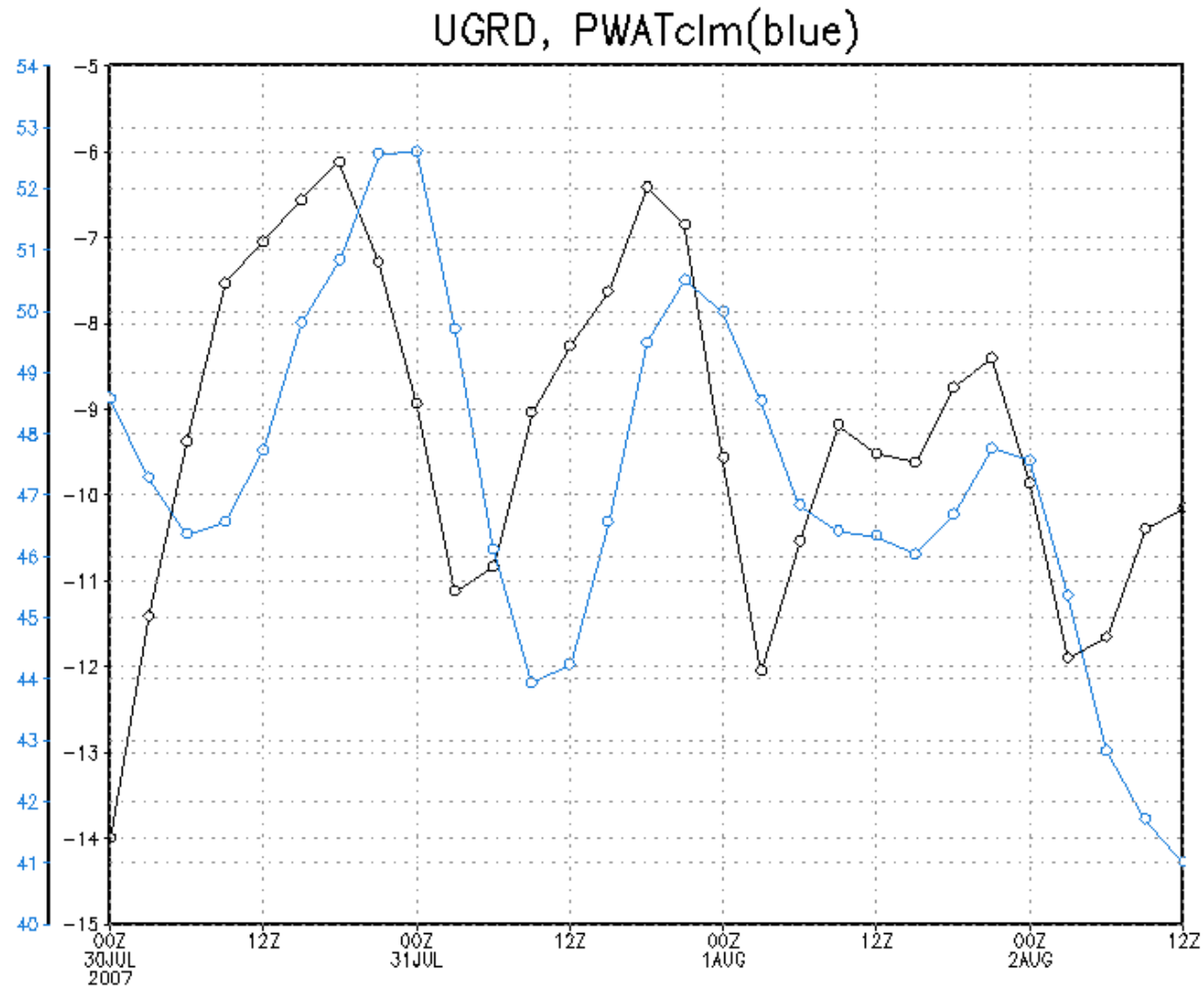
00 UTC on 1 August, 2007 at 700.0 mb



06 UTC on 1 August, 2007 at 700.0 mb

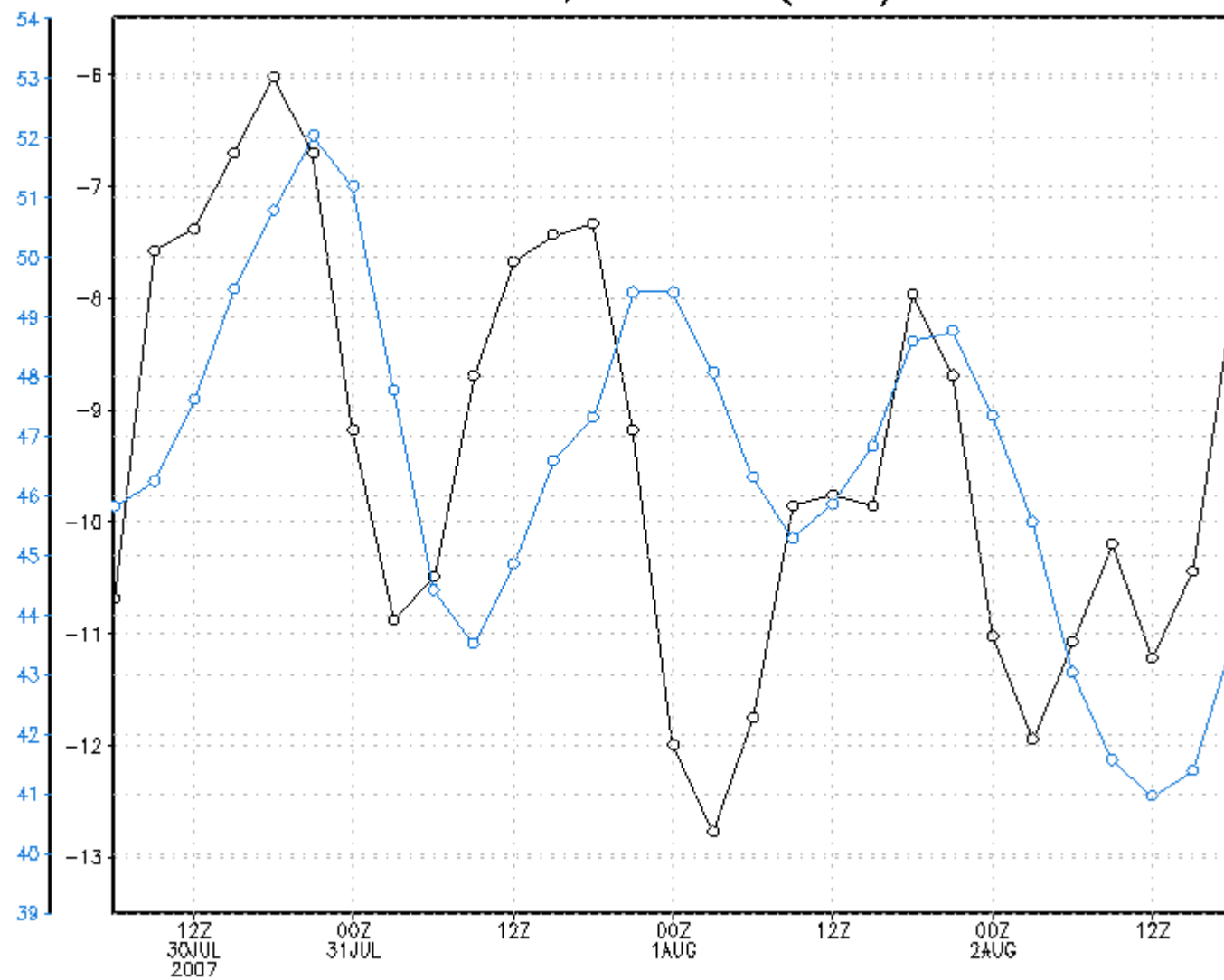


Today's 00Z and 06Z run have the same pattern as yesterday, showing weak easterlies, this is 00Z run

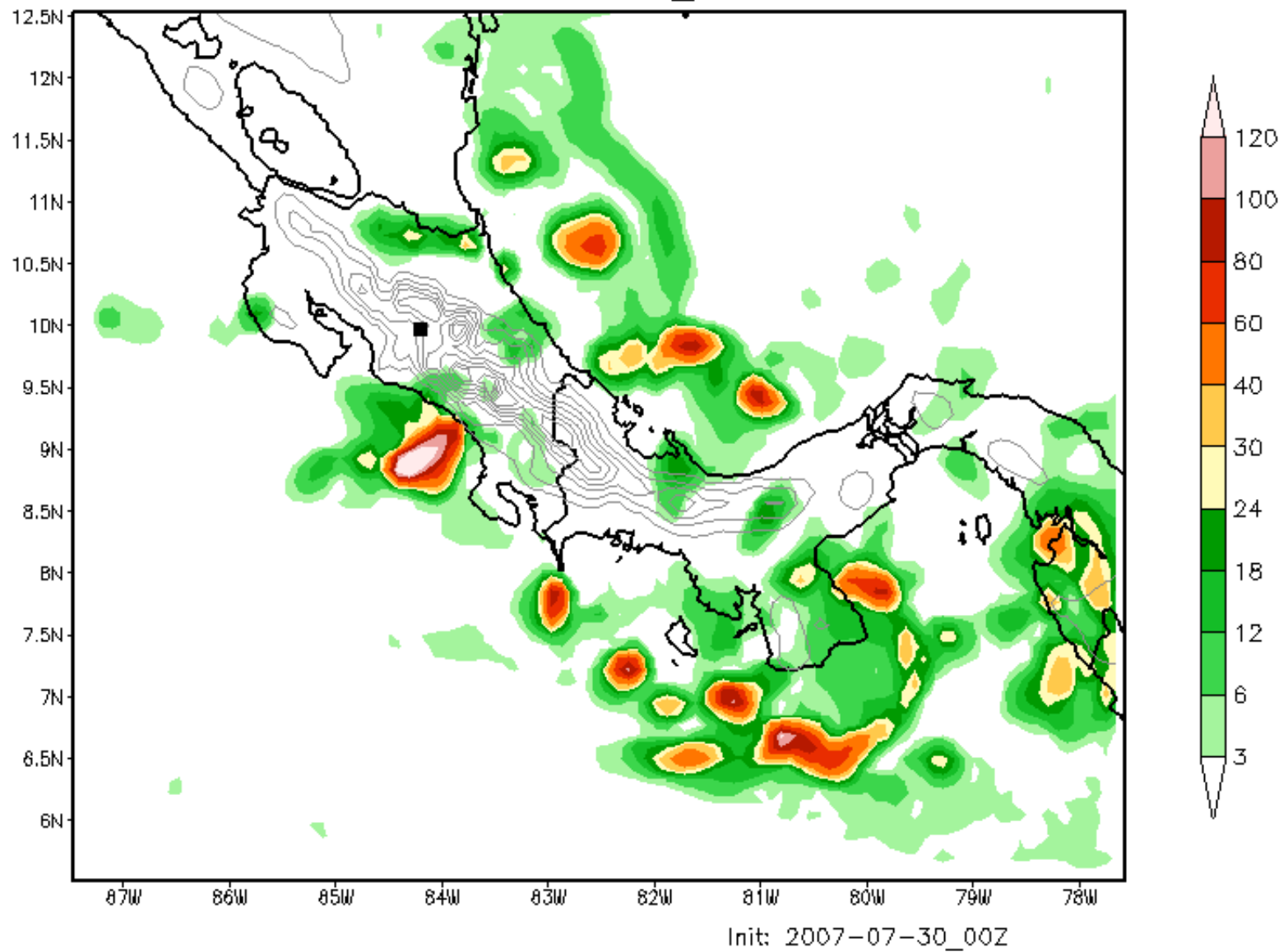


06Z Run

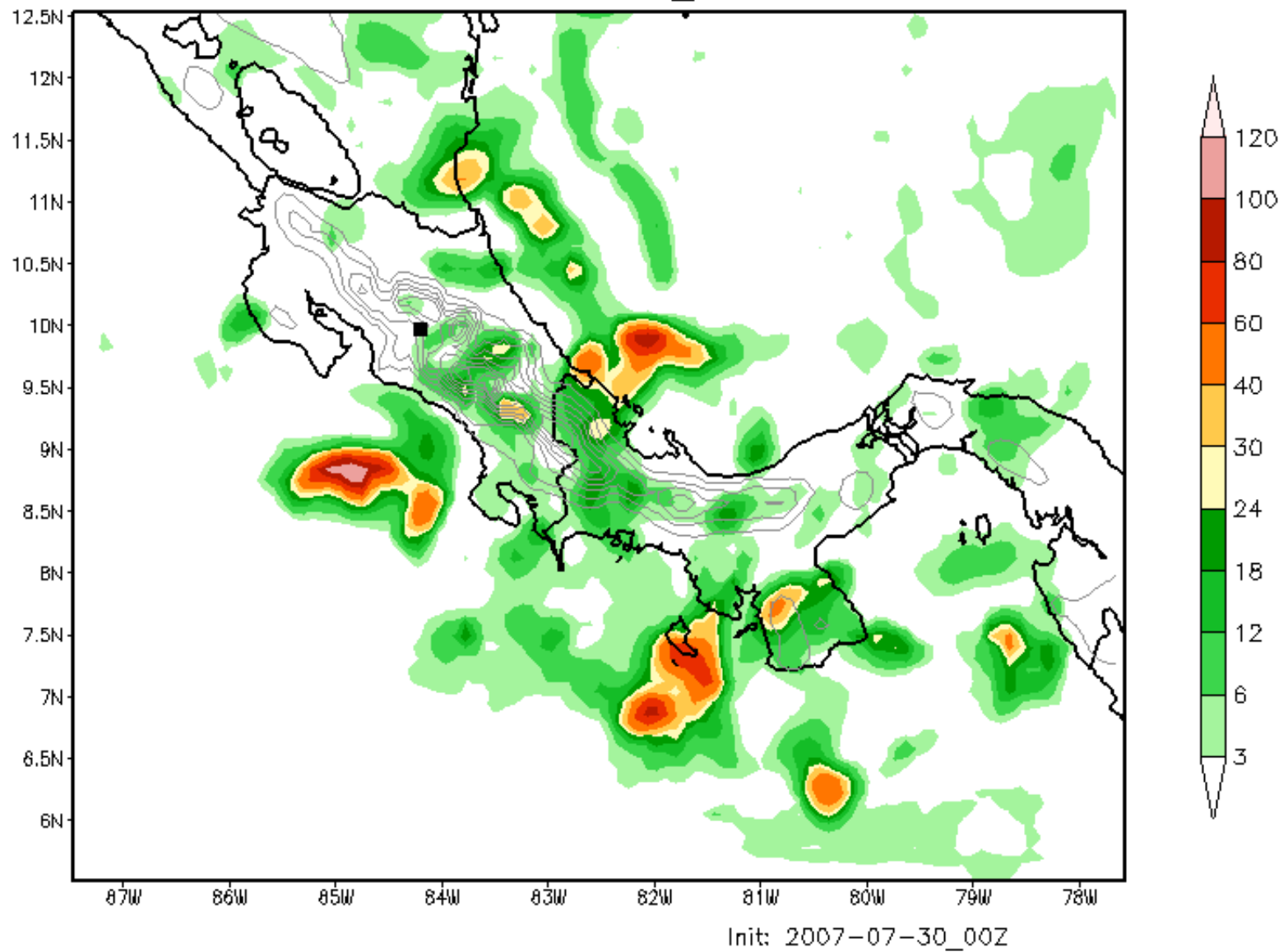
UGRD, PWATclm(blue)



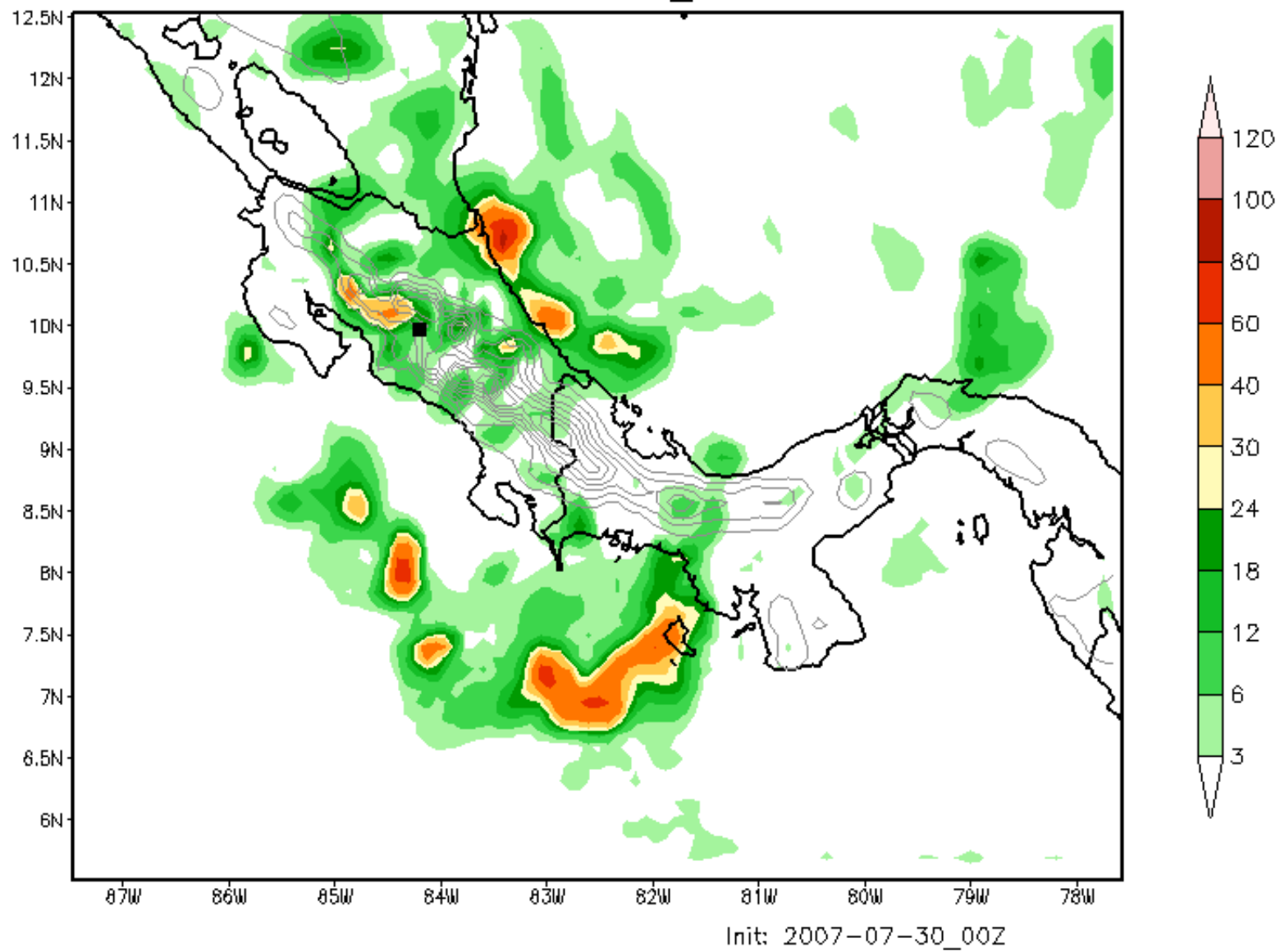
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-30_15Z



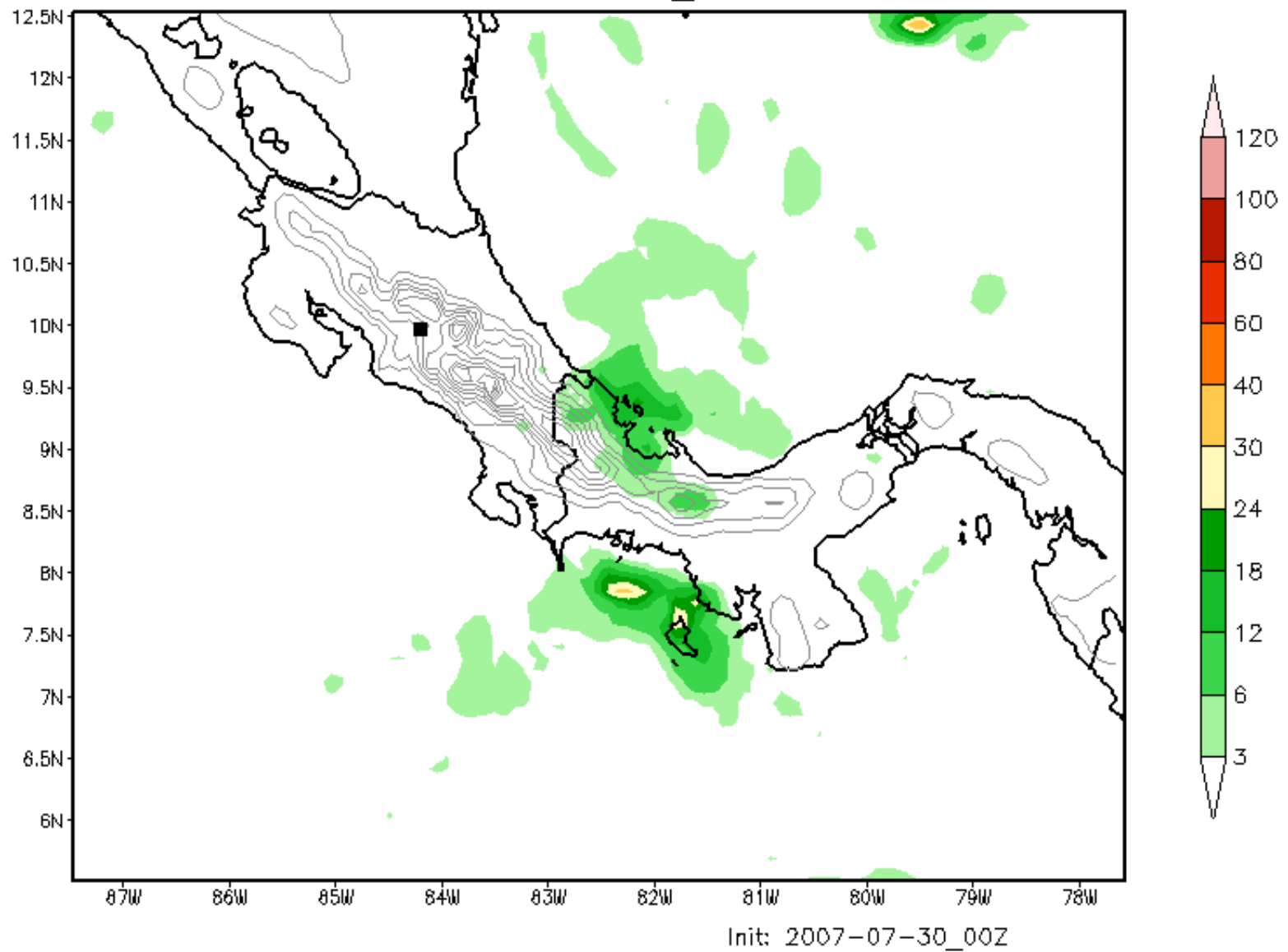
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-30_18Z



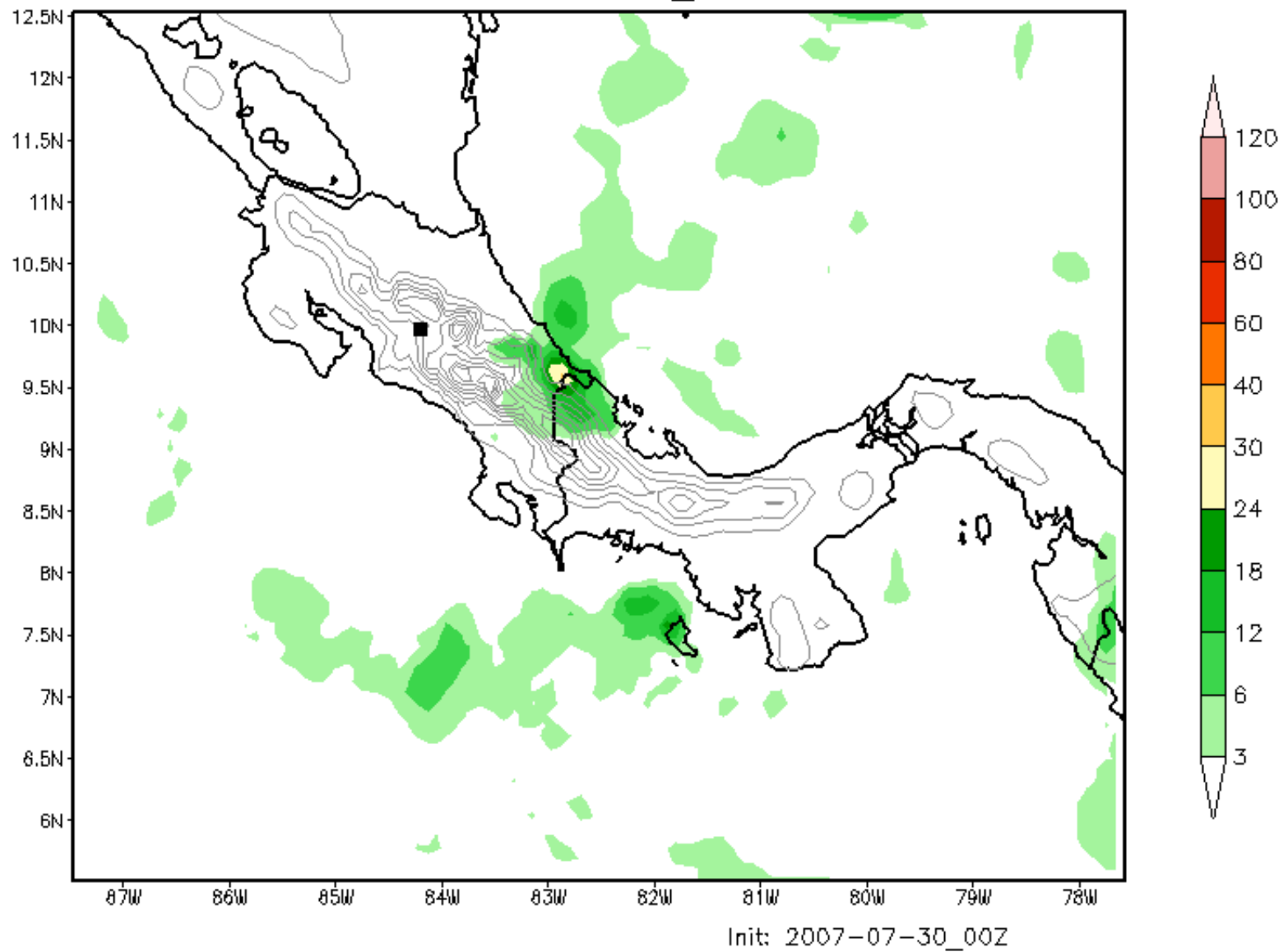
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-30_21Z



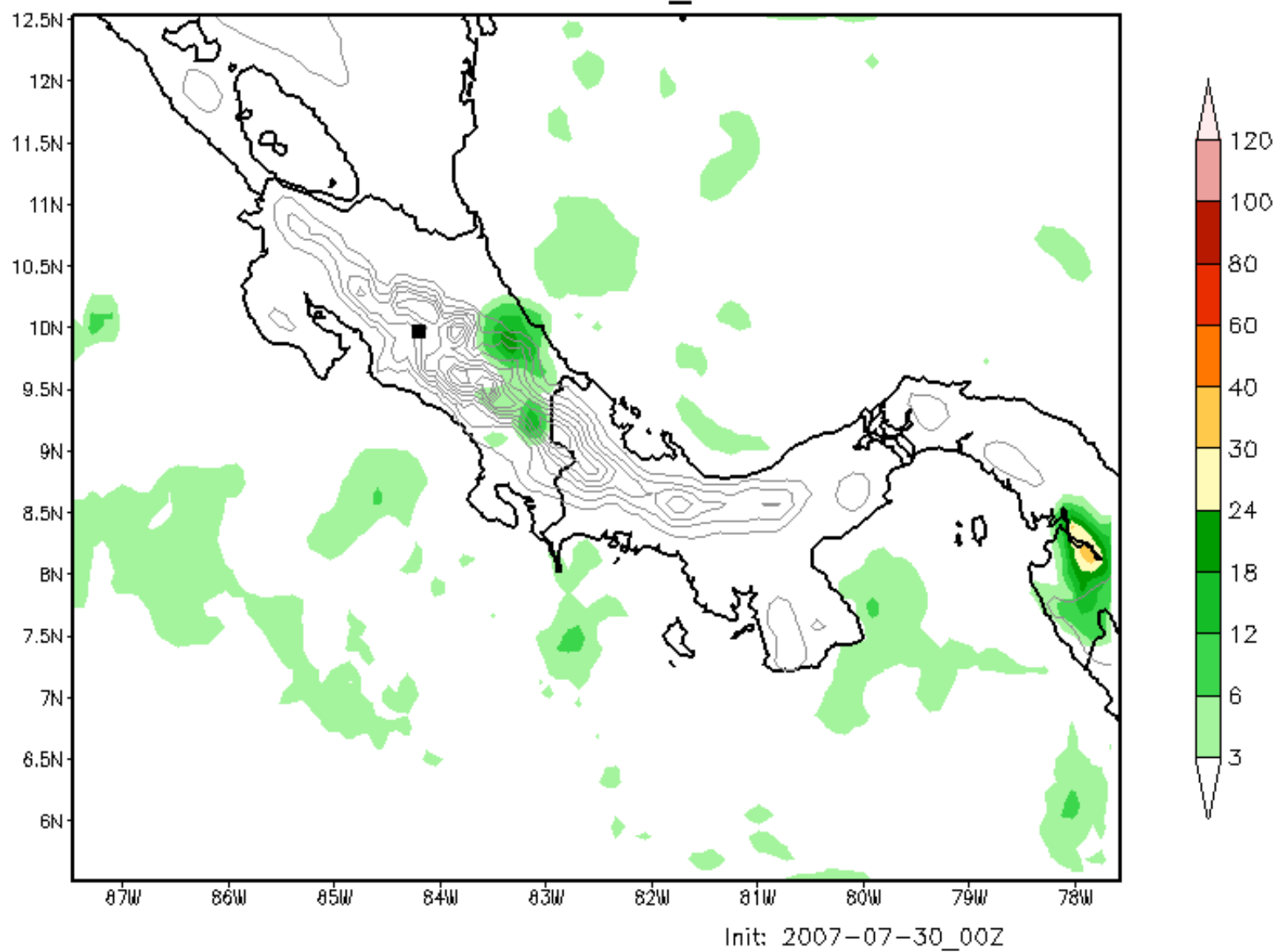
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_06Z



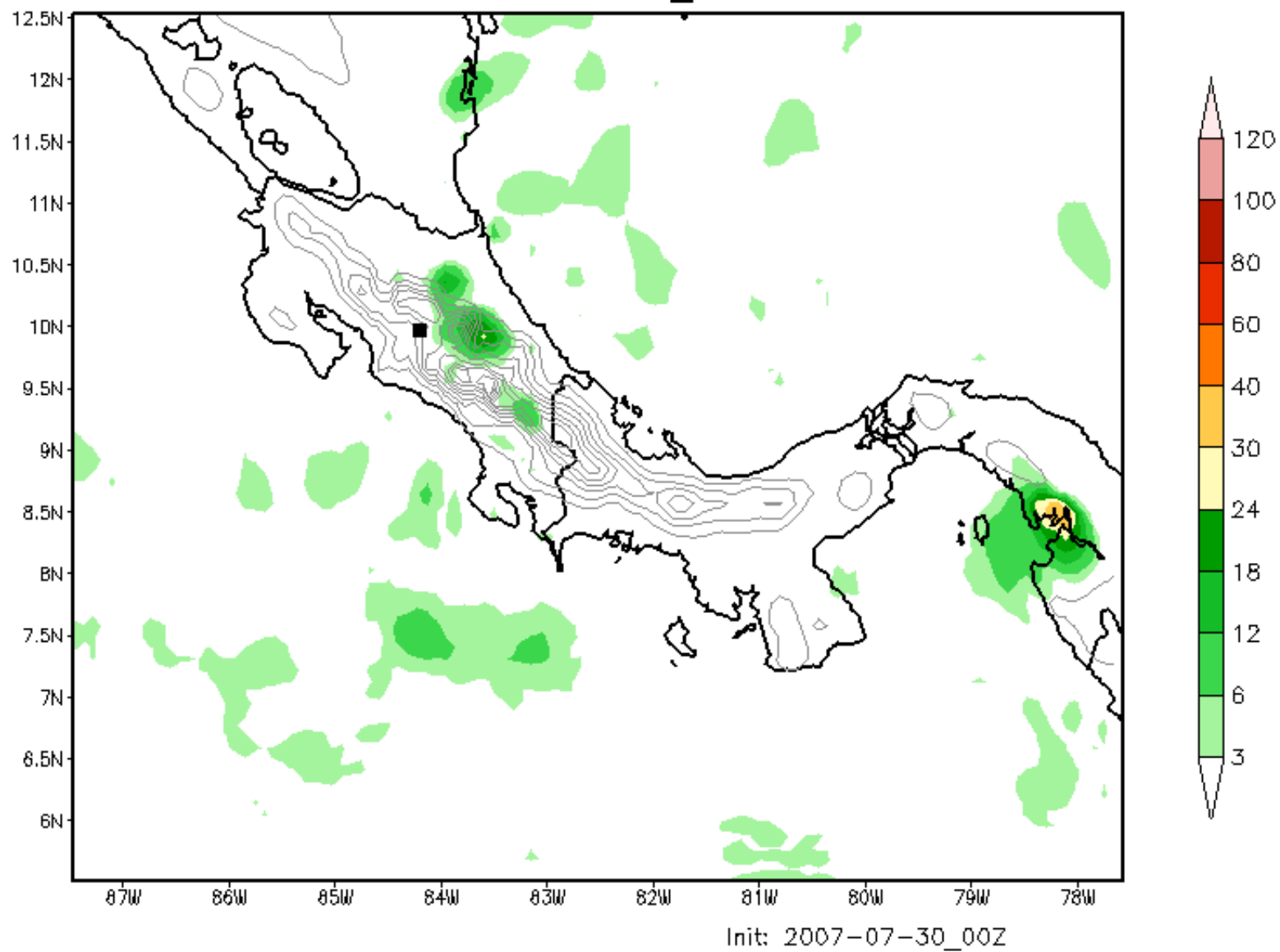
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_09Z



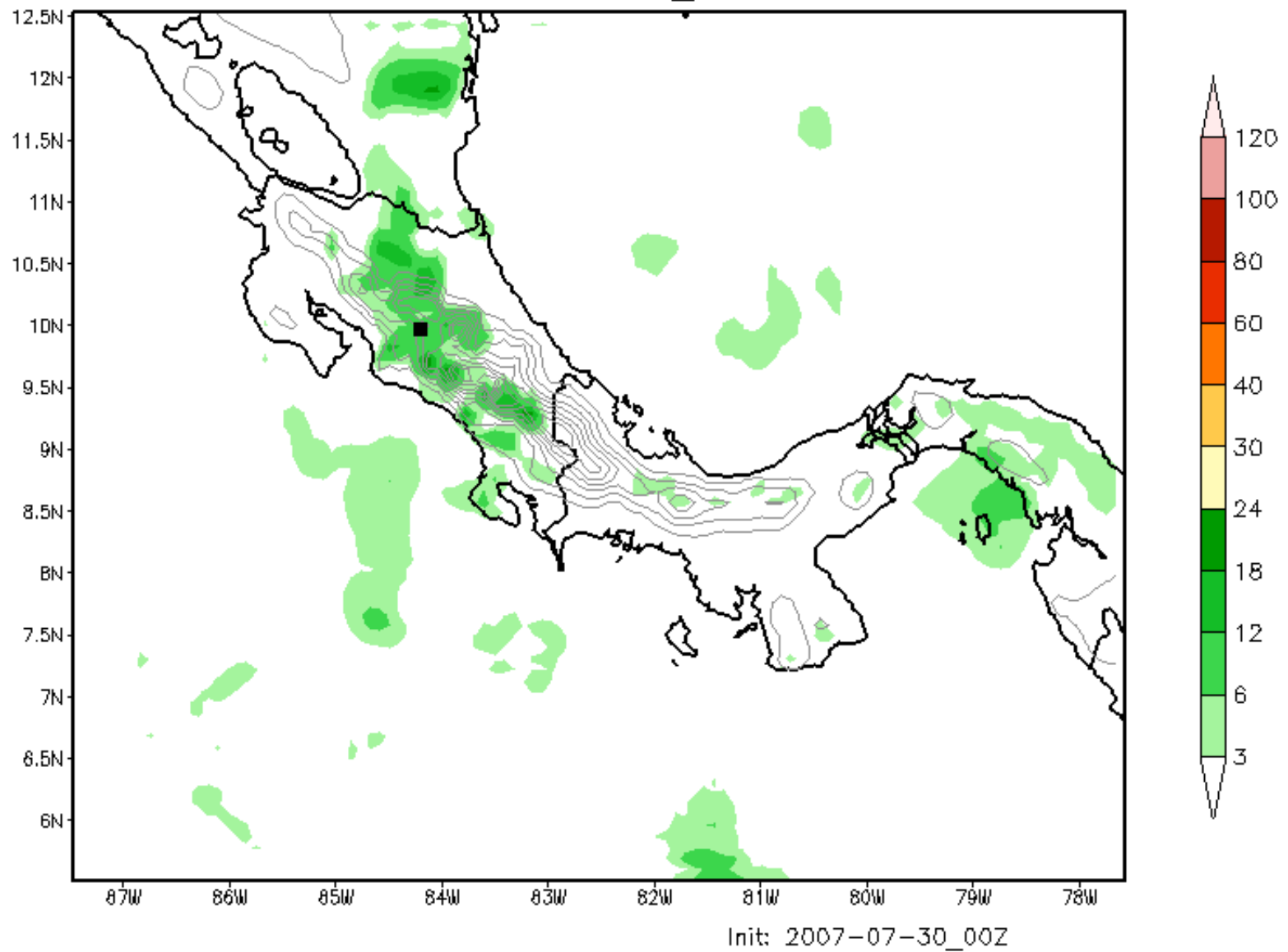
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_12Z



CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_15Z



CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_18Z



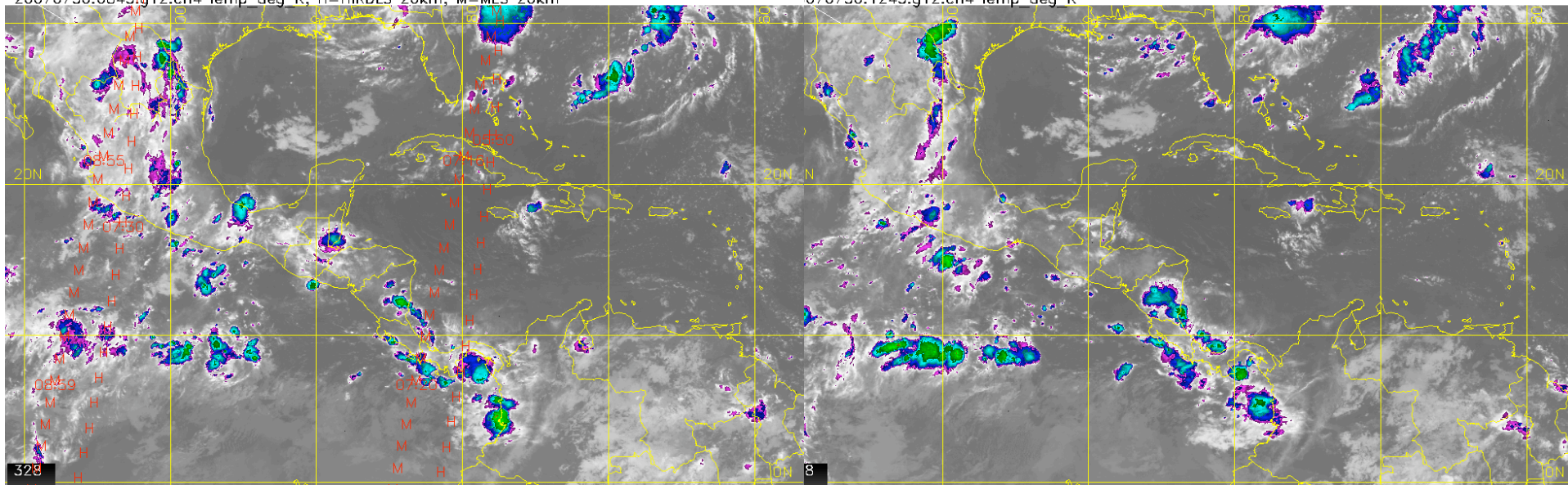
Tuesday and Wednesday Features

- 9 AM wind shift today, may have rain by 1 PM, stronger westerlies, and noon convection to the west of us
- As shown yesterday, on Tuesday the wind shift will occur earlier than yesterday (and earlier than Wednesday). Tuesday will be much like today.
- Drying is occurring, so the showers will be isolated with no long and persistent rain.
- Wednesday will have less rains than Tuesday, and they will begin later on Wednesday than on Tuesday because of the later wind shift. However, convection west of the airport will probably start around noon on both days.
- None of these days show interesting convection near the Panama Bight (GFS).
- On Wednesday the ITCZ, south of CR looks active.
- Convection West of the airport will begin near noon in both days.

Convective Targets for
Tomorrow, Wednesday(?)

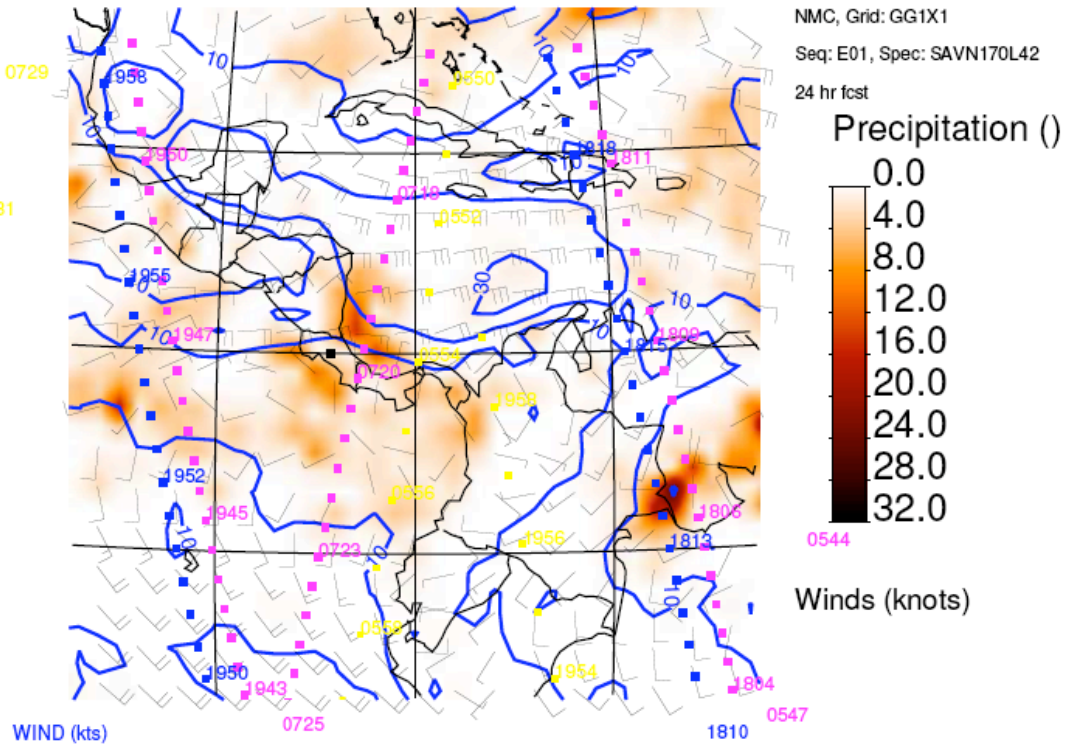
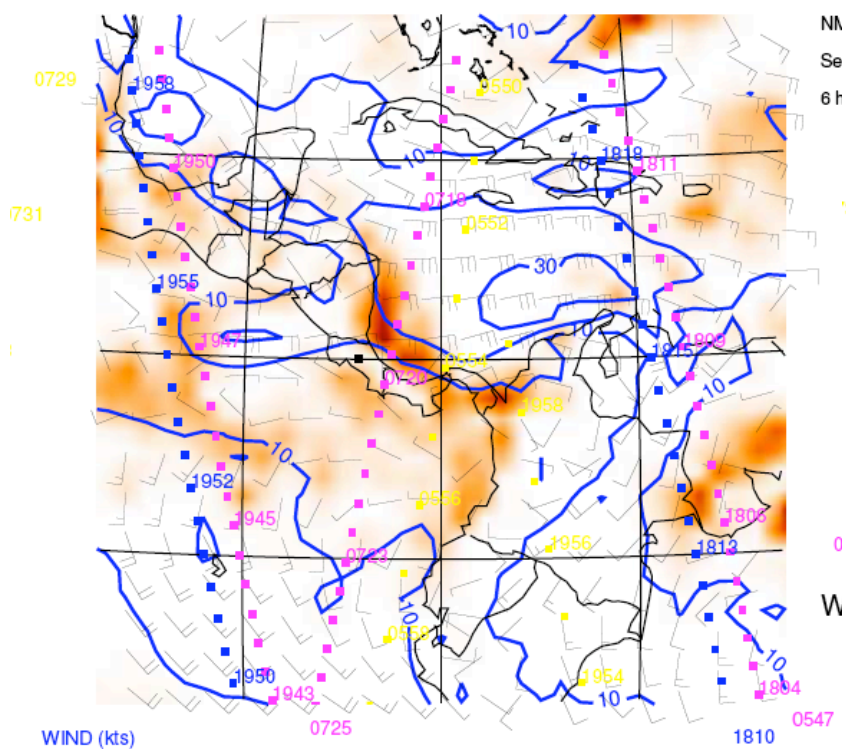
20070730.0845.g12.ch4 temp_deg_K, H=HIRDLS 20km, M=MLS 20km

070730.1245.g12.ch4 temp_deg_K



12 UTC on 30 July, 2007 at 925.0 n

12 UTC on 30 July, 2007 at 925.0 mb





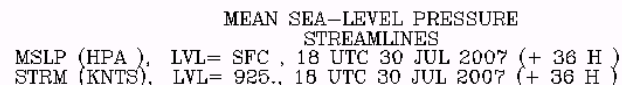
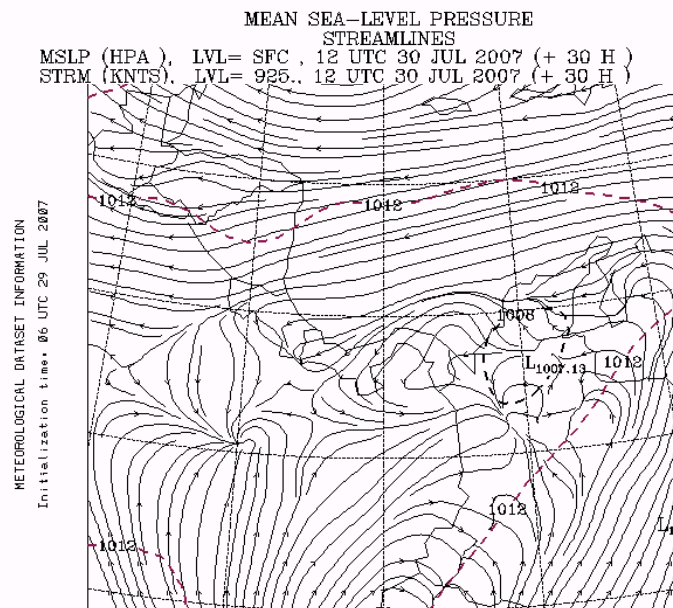
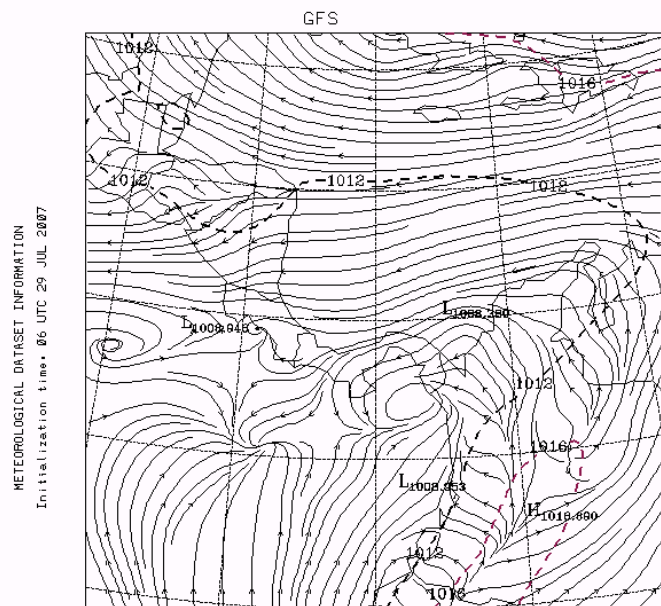
NOAA Air Resources Laboratory

This product was produced by an Internet user on the NOAA Air Resources Laboratory's web site. See the disclaimer for further information (<http://www.arl.noaa.gov/ready/disclaim.html>).

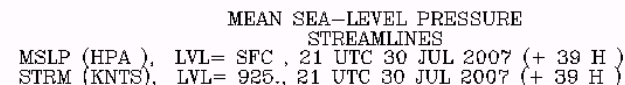
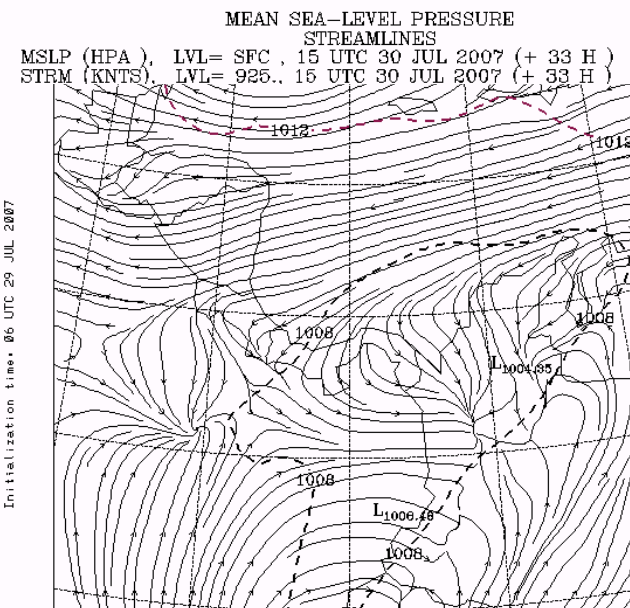
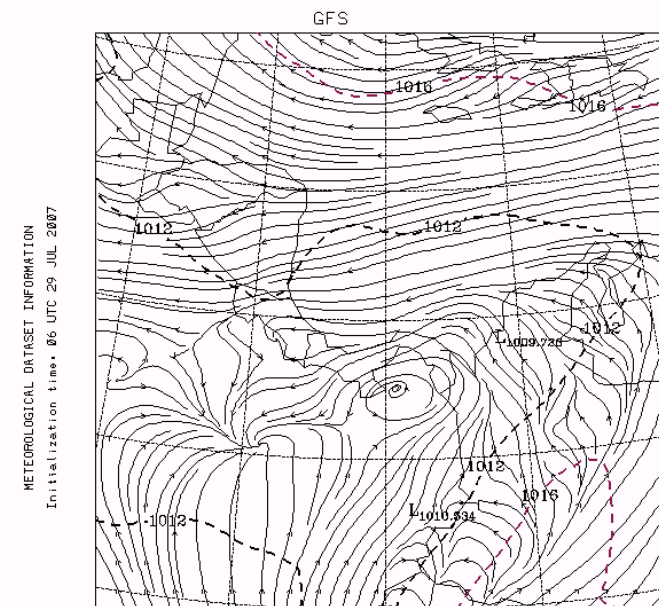


NOAA Air Resources Laboratory

This product was produced by an Internet user on the NOAA Air Resources Laboratory's web site. See the disclaimer for further information (<http://www.arl.noaa.gov/ready/disclaim.html>).

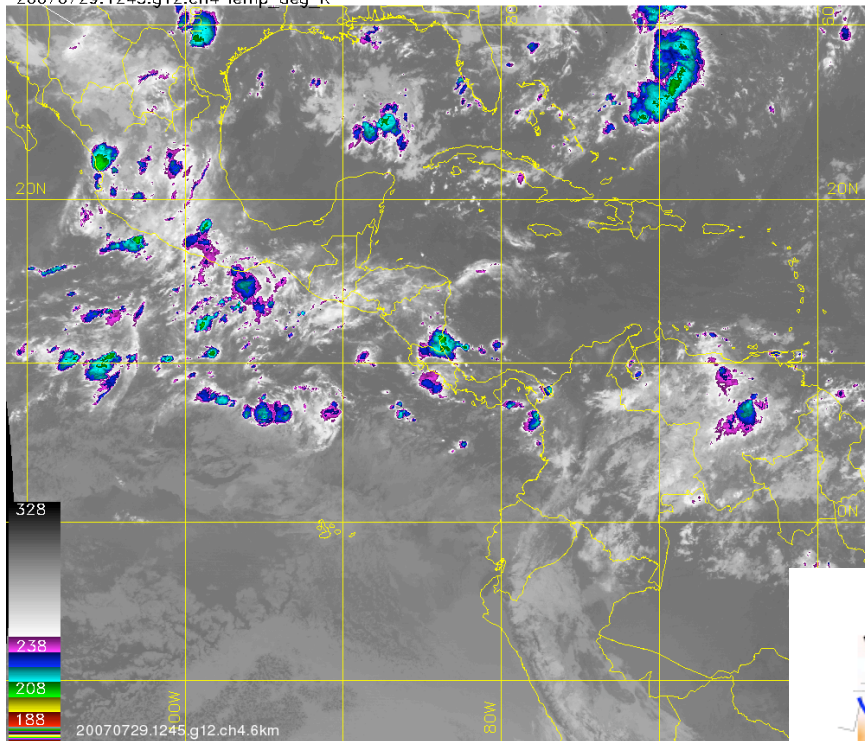


NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - AIR RESOURCES LABORATORY

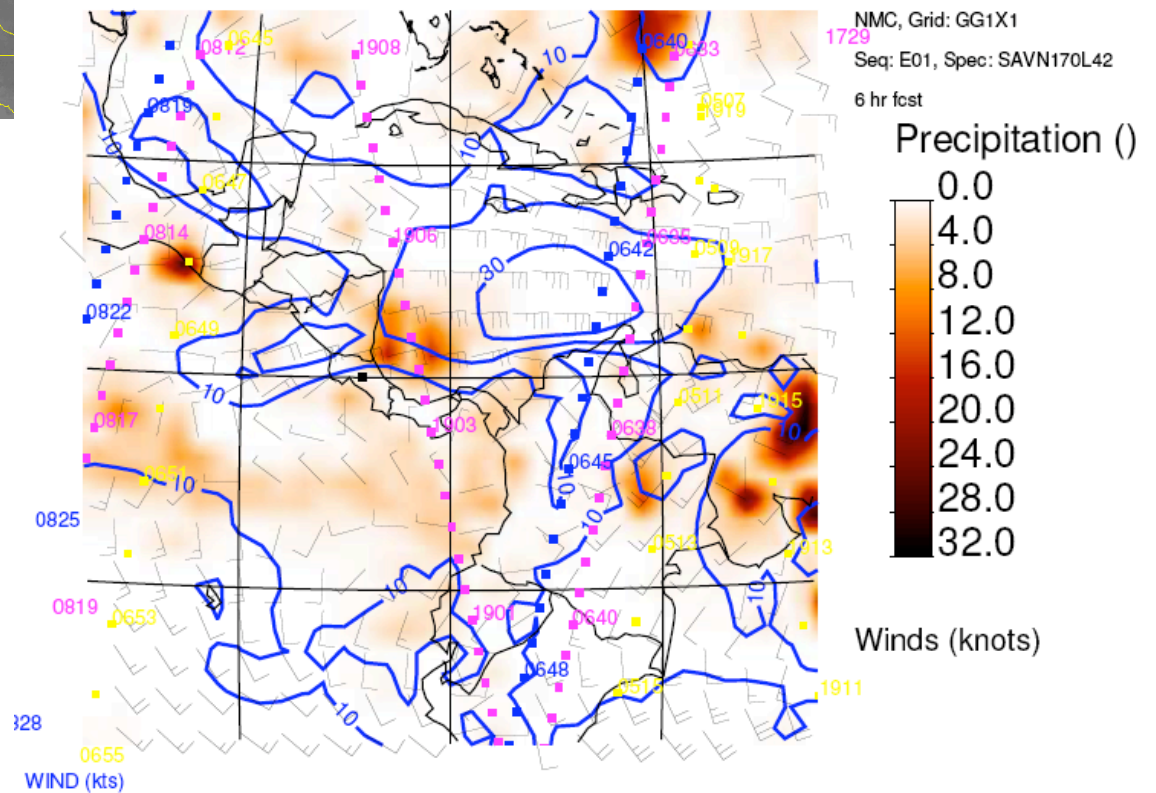


NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - AIR RESOURCES LABORATORY

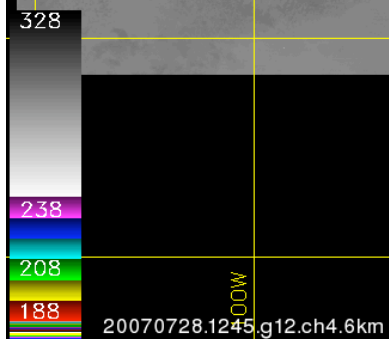
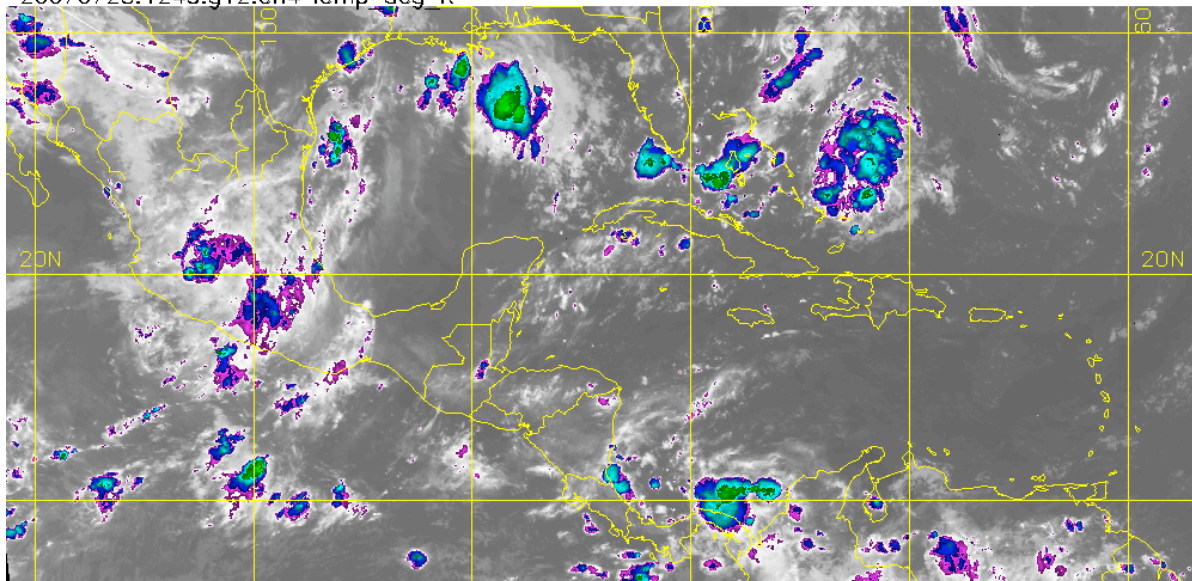
20070729.1245.g12.ch4 temp_deg_K



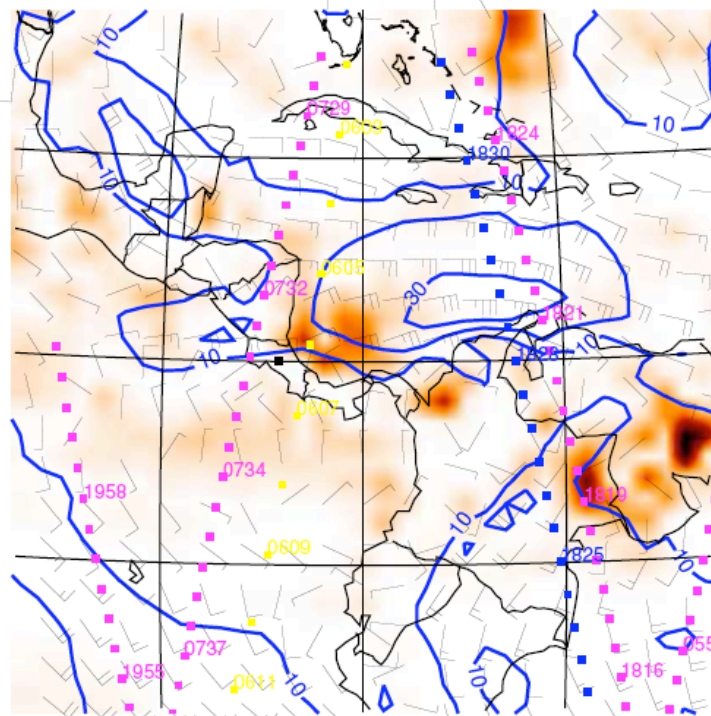
12 UTC on 29 July, 2007 at 925.0 mb



20070728.1245.g12.ch4 temp_deg_K

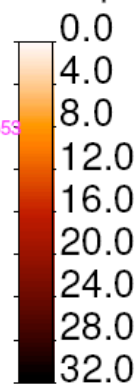


12 UTC on 28 July, 2007 at 925.0 mb



NMC, Grid: GG1X1
Seq: E01, Spec: SAVN170L42
6 hr fcst

Precipitation (mm)



Winds (knots)

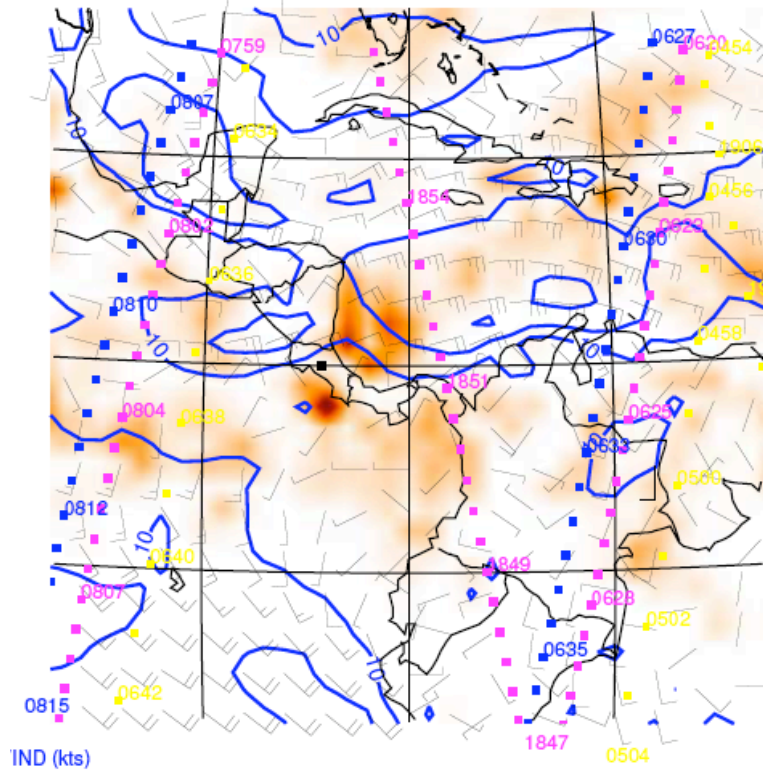
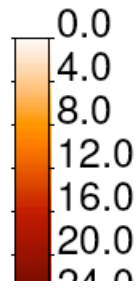
VIND (kts)

1822 0433

12 UTC on 31 July, 2007 at 925.0 mb

NMC, Grid: GG1X1
Seq: E01, Spec: SAVN170L42
48 hr fcst

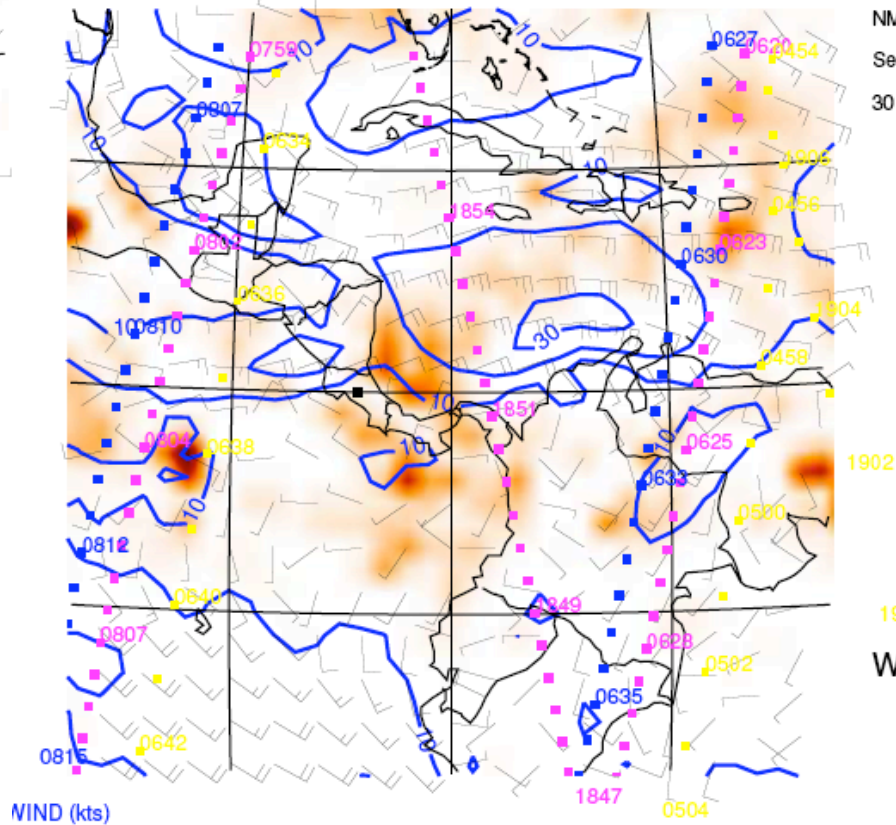
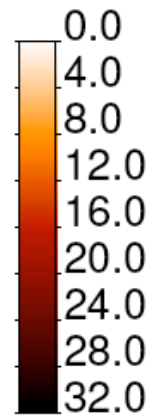
Precipitation (")



12 UTC on 31 July, 2007 at 925.0 mb

NMC, Grid: GG1X1
Seq: E01, Spec: SAVN170L42
30 hr fcst

Precipitation (")



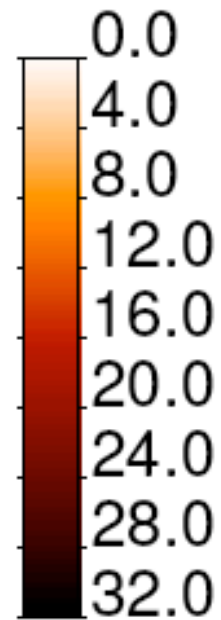
18 UTC on 31 July, 2007 at 200.0 mb

NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

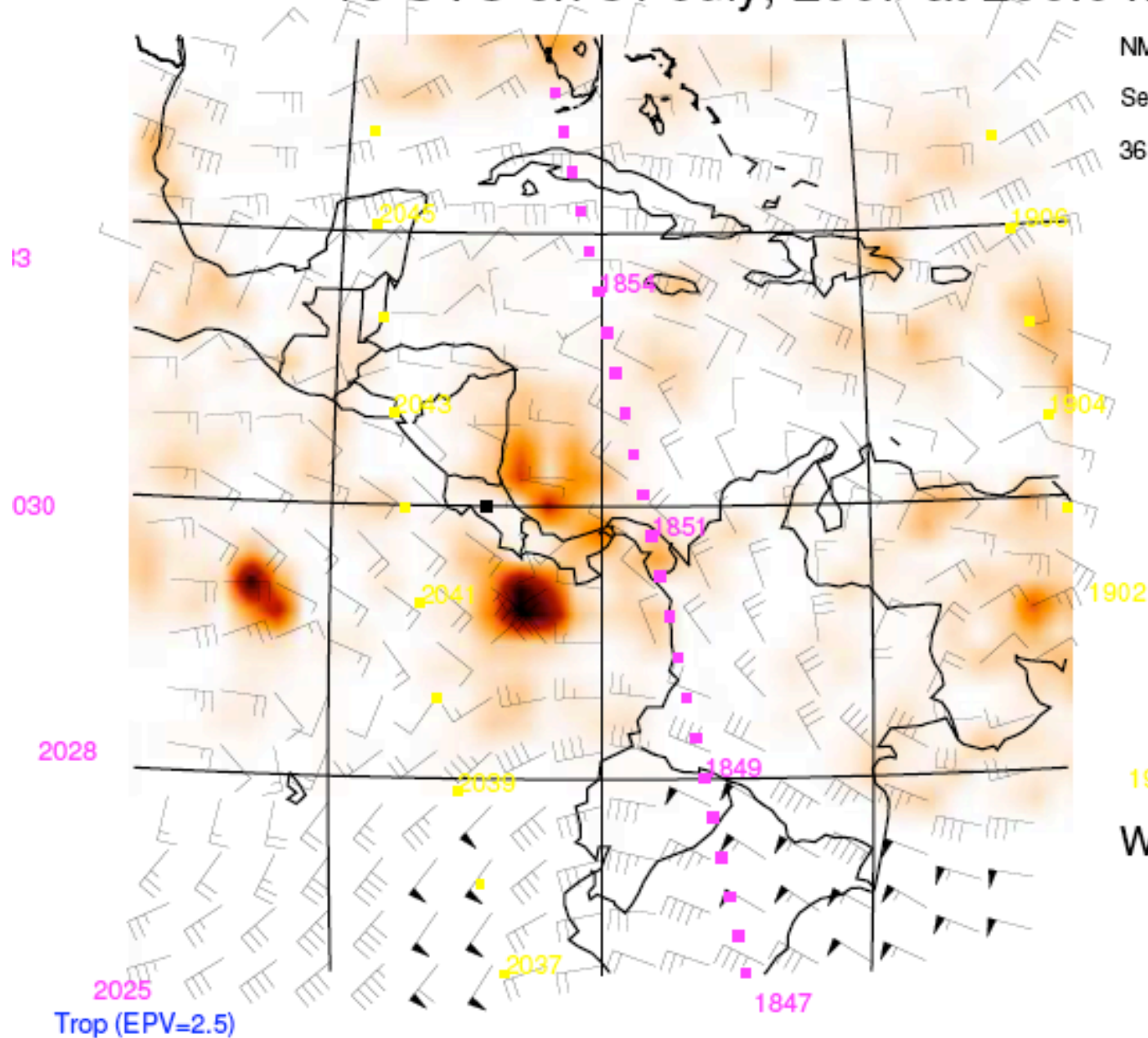
36 hr fcst

Precipitation ()



1900

Winds (knots)



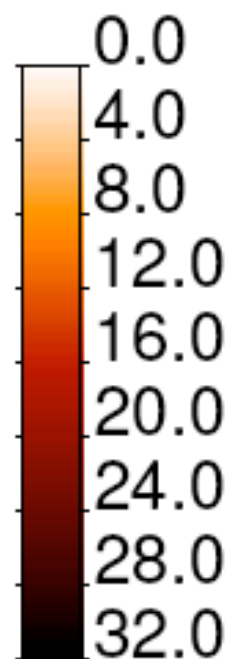
12 UTC on 30 July, 2007 at 200.0 mb

NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

6 hr fcst

Precipitation ()

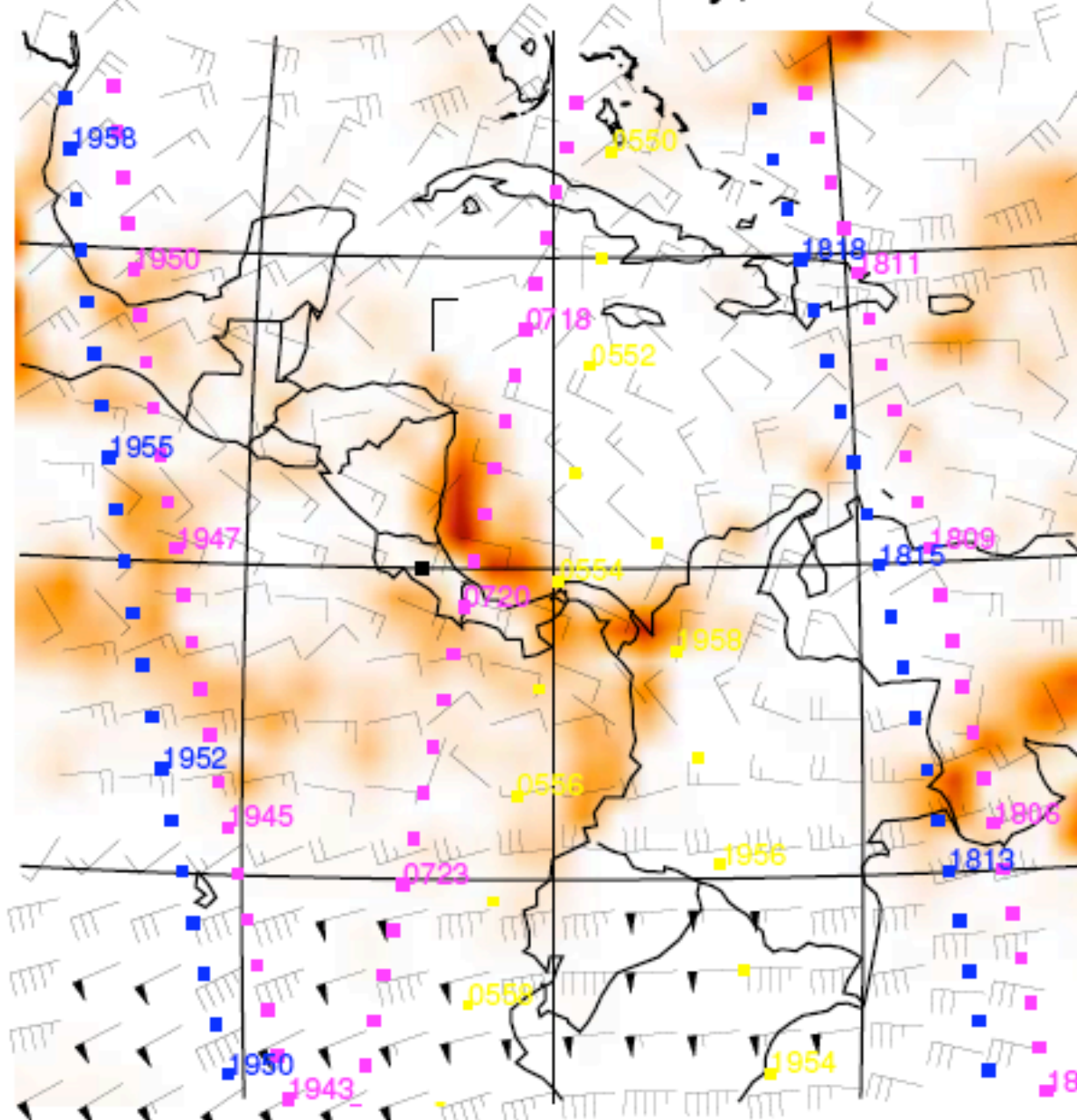


Winds (knots)

0729

31

Trop (EPV=2.5)



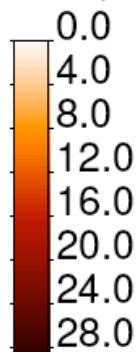
18 UTC on 1 August, 2007 at 200.0 mb

NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

60 hr fcst

Precipitation (")



Trop (EPV=2.5)

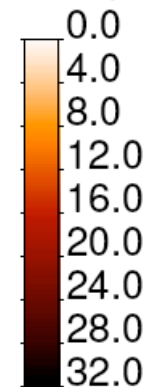
12 UTC on 1 August, 2007 at 925.0 mb

NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

54 hr fcst

Precipitation (")



Winds (knots)

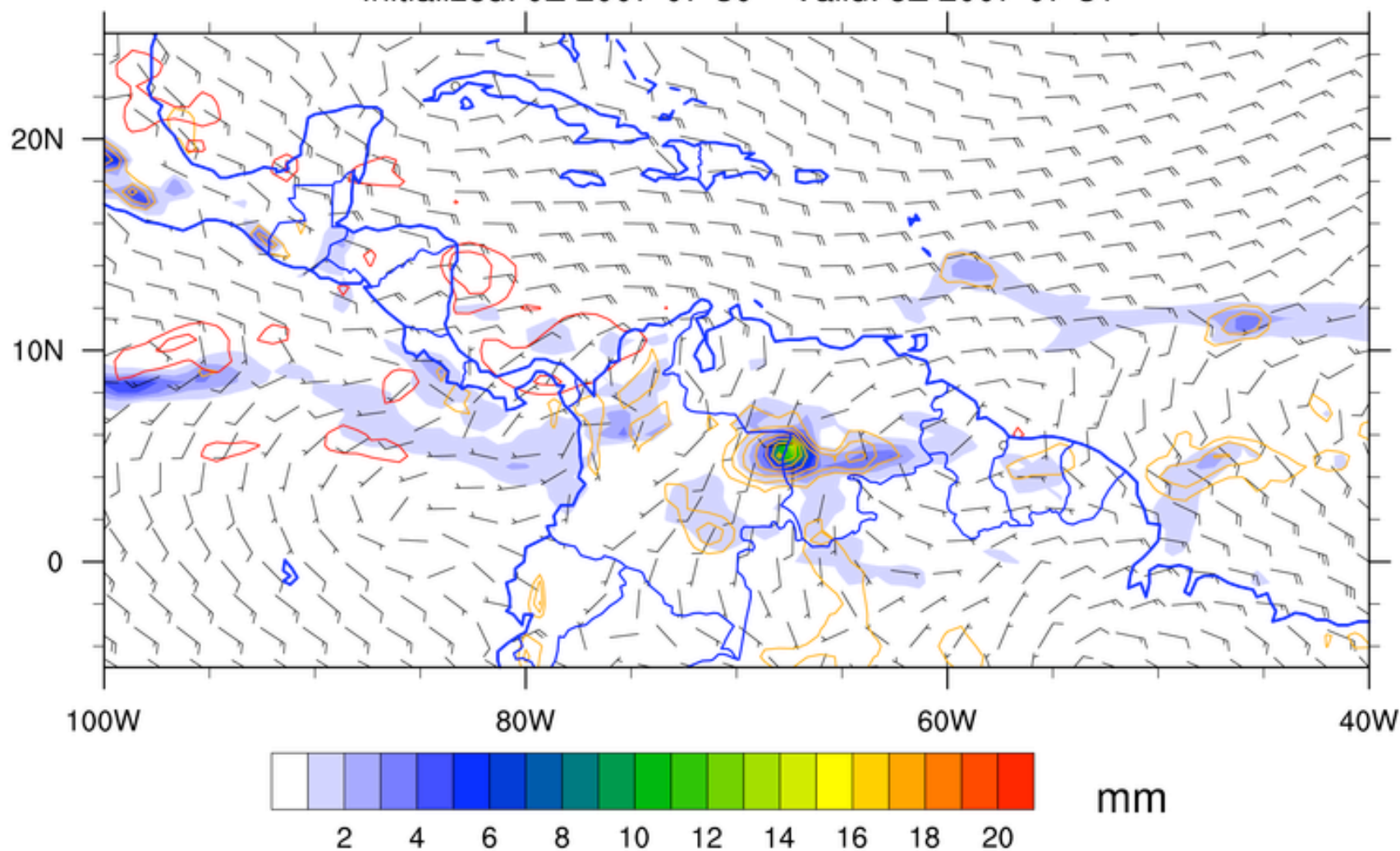
WIND (kts)

1758

GEOS-5 Forecast Model, $0.5^\circ \times 0.666^\circ$

3 Hr Precip (mm), 925 mb Winds (knots), 200&500 mb w (cm/s)

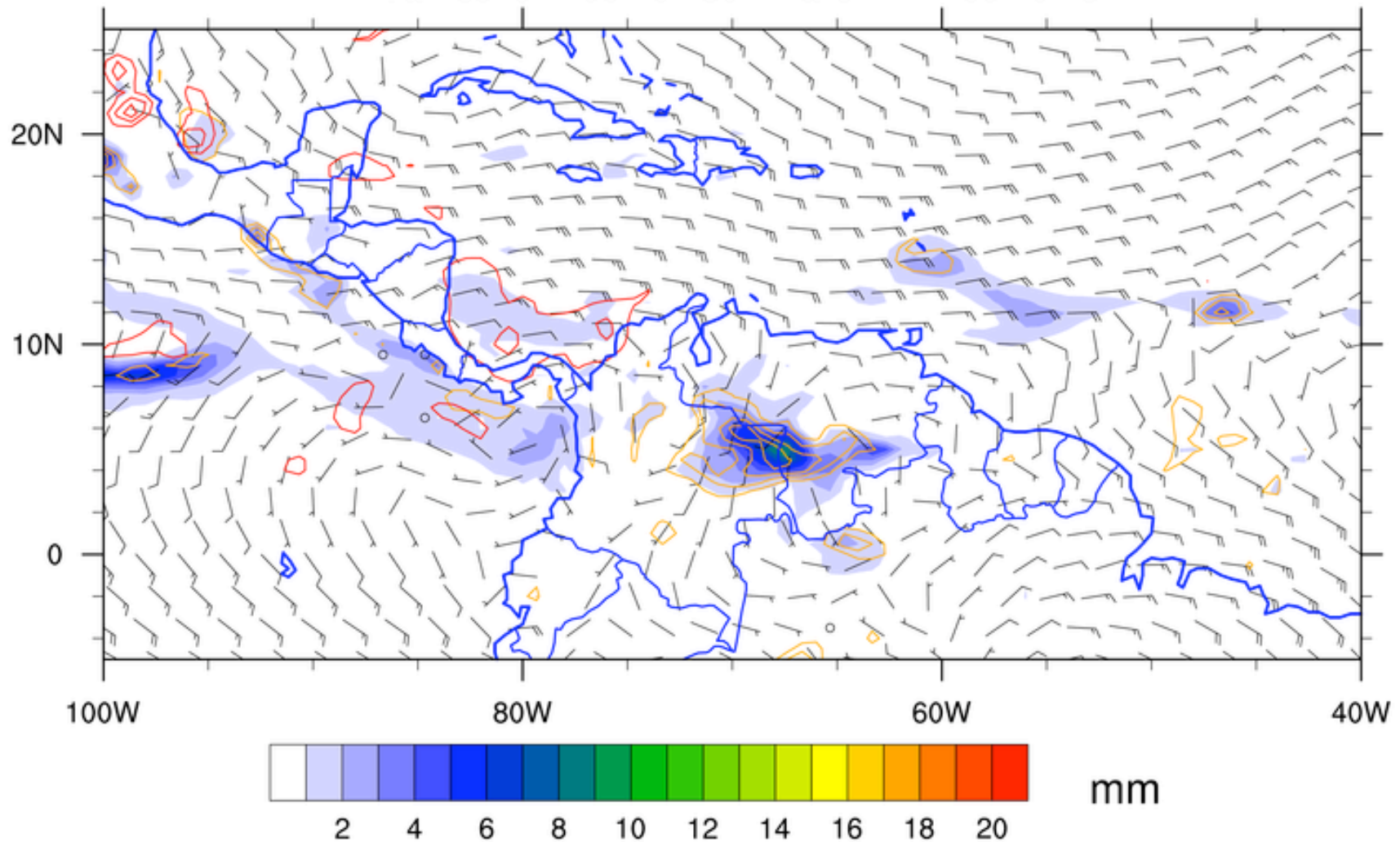
Initialized: 0Z 2007-07-30 Valid: 6Z 2007-07-31



GEOS-5 Forecast Model, 0.5° x 0.666°

3 Hr Precip (mm), 925 mb Winds (knots), 200&500 mb w (cm/s)

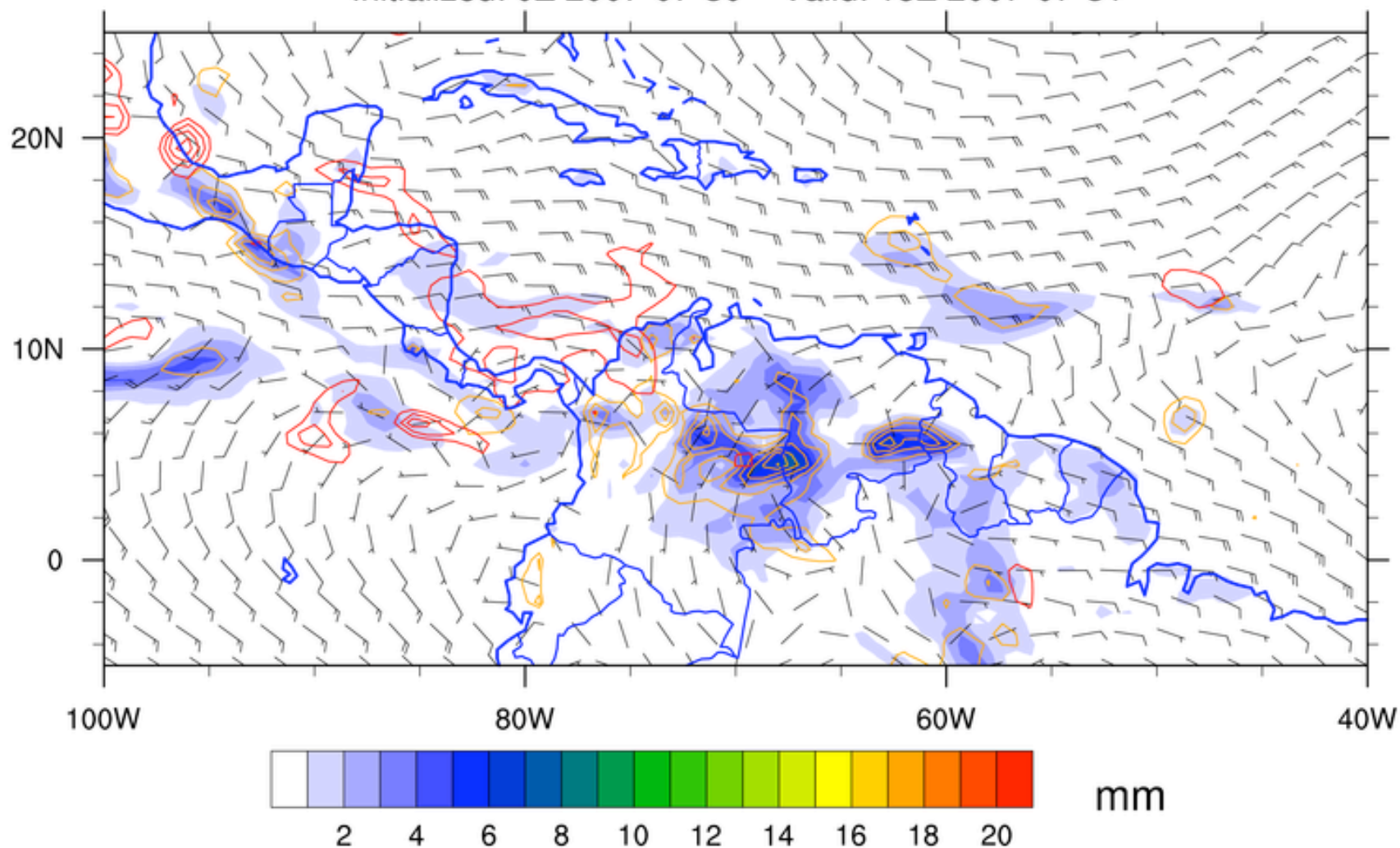
Initialized: 0Z 2007-07-30 Valid: 12Z 2007-07-31



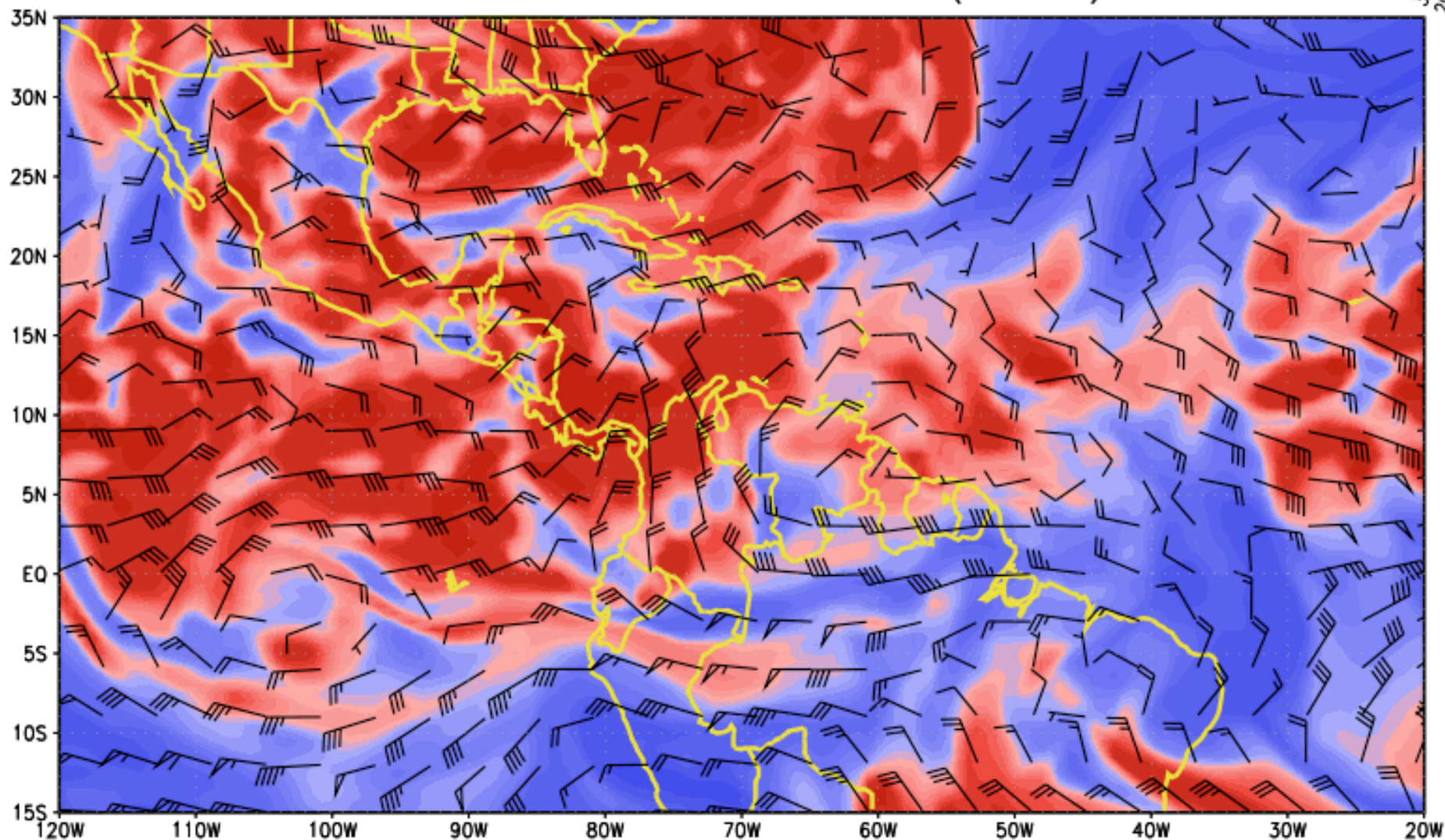
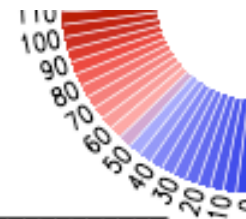
GEOS-5 Forecast Model, $0.5^\circ \times 0.666^\circ$

3 Hr Precip (mm), 925 mb Winds (knots), 200&500 mb w (cm/s)

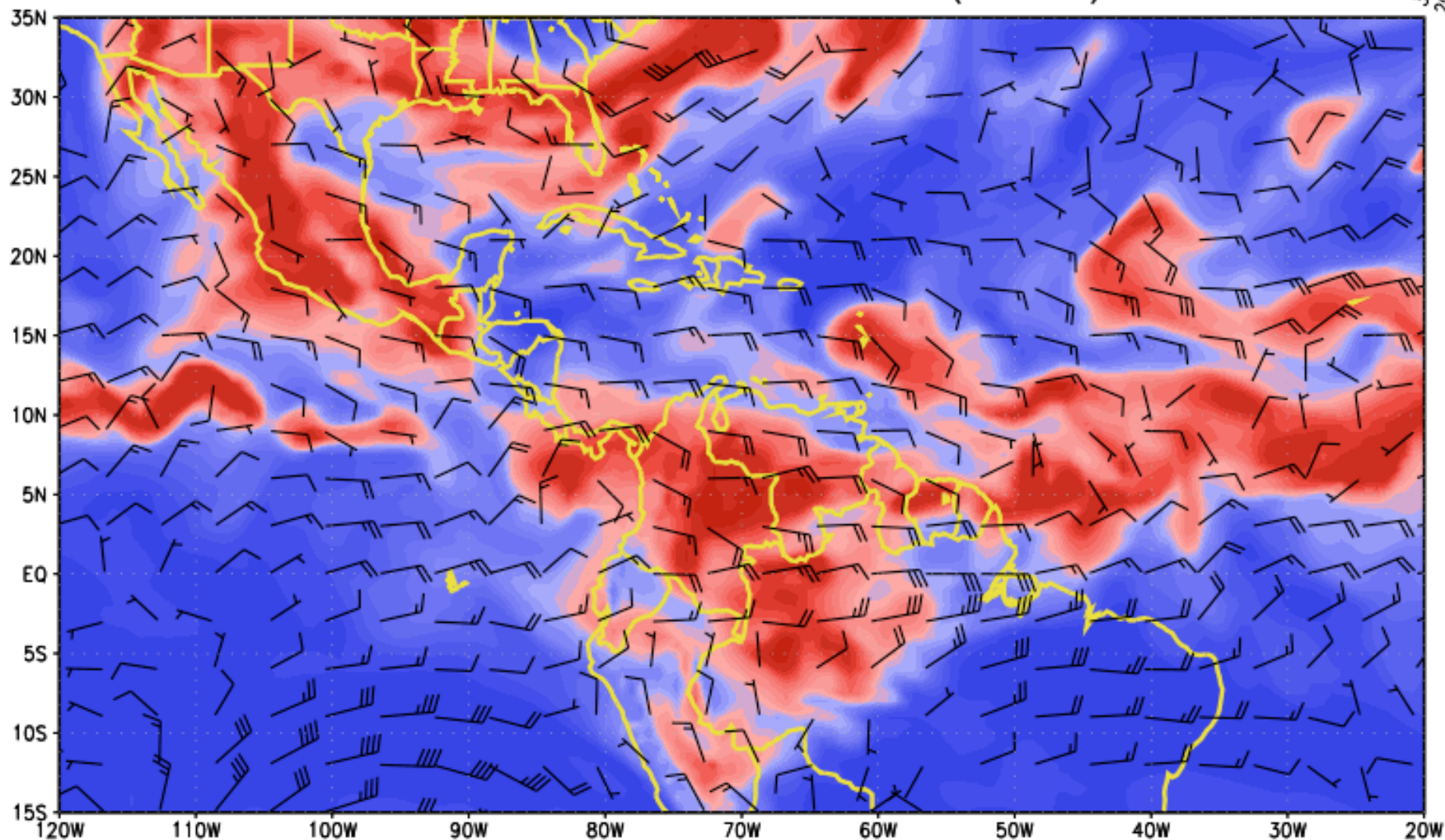
Initialized: 0Z 2007-07-30 Valid: 18Z 2007-07-31



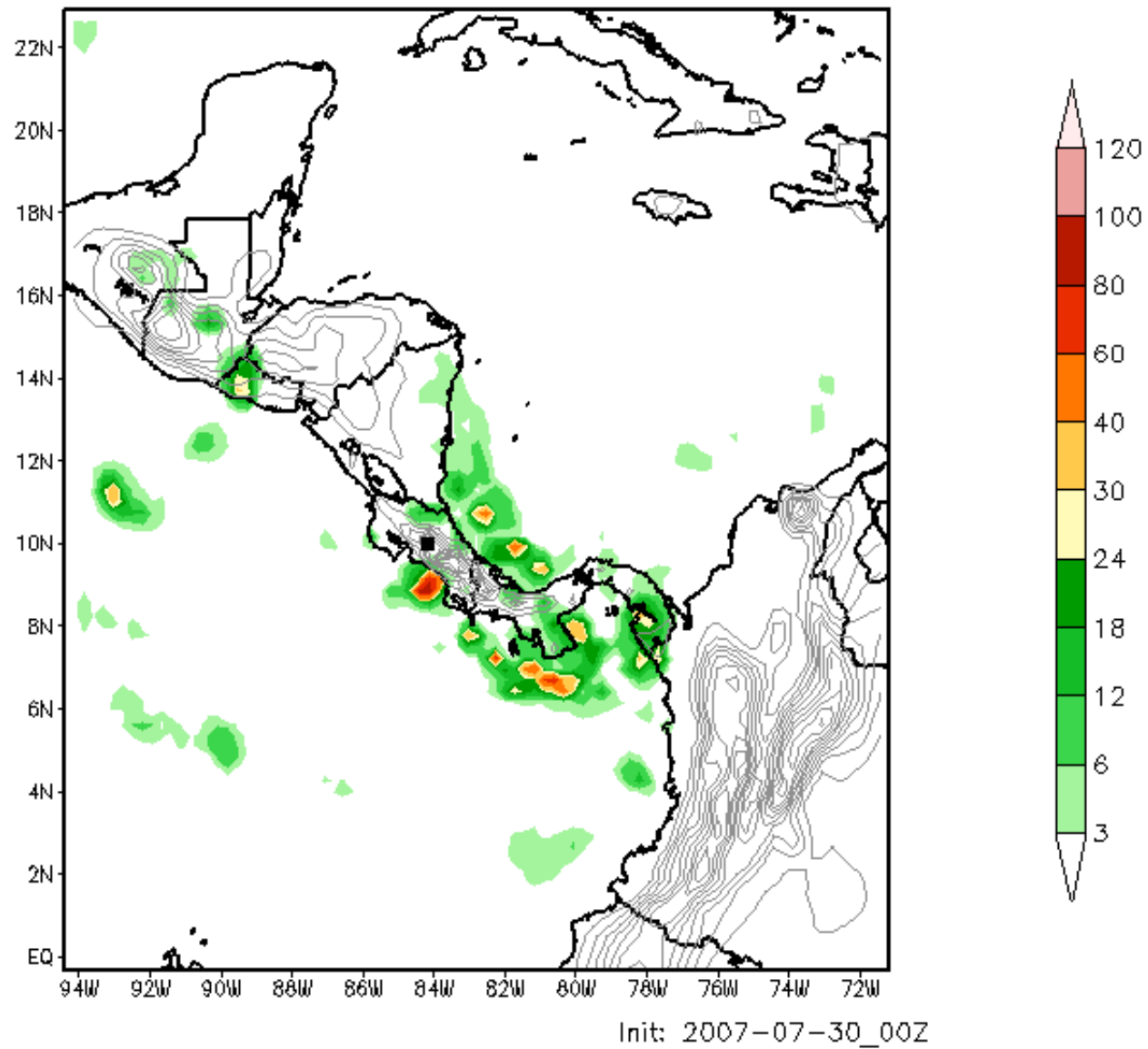
200 hPa Winds [knots] and Relative Humidity [%] Valid: Tue 15z 2007-07-31 ($\tau = 39$)



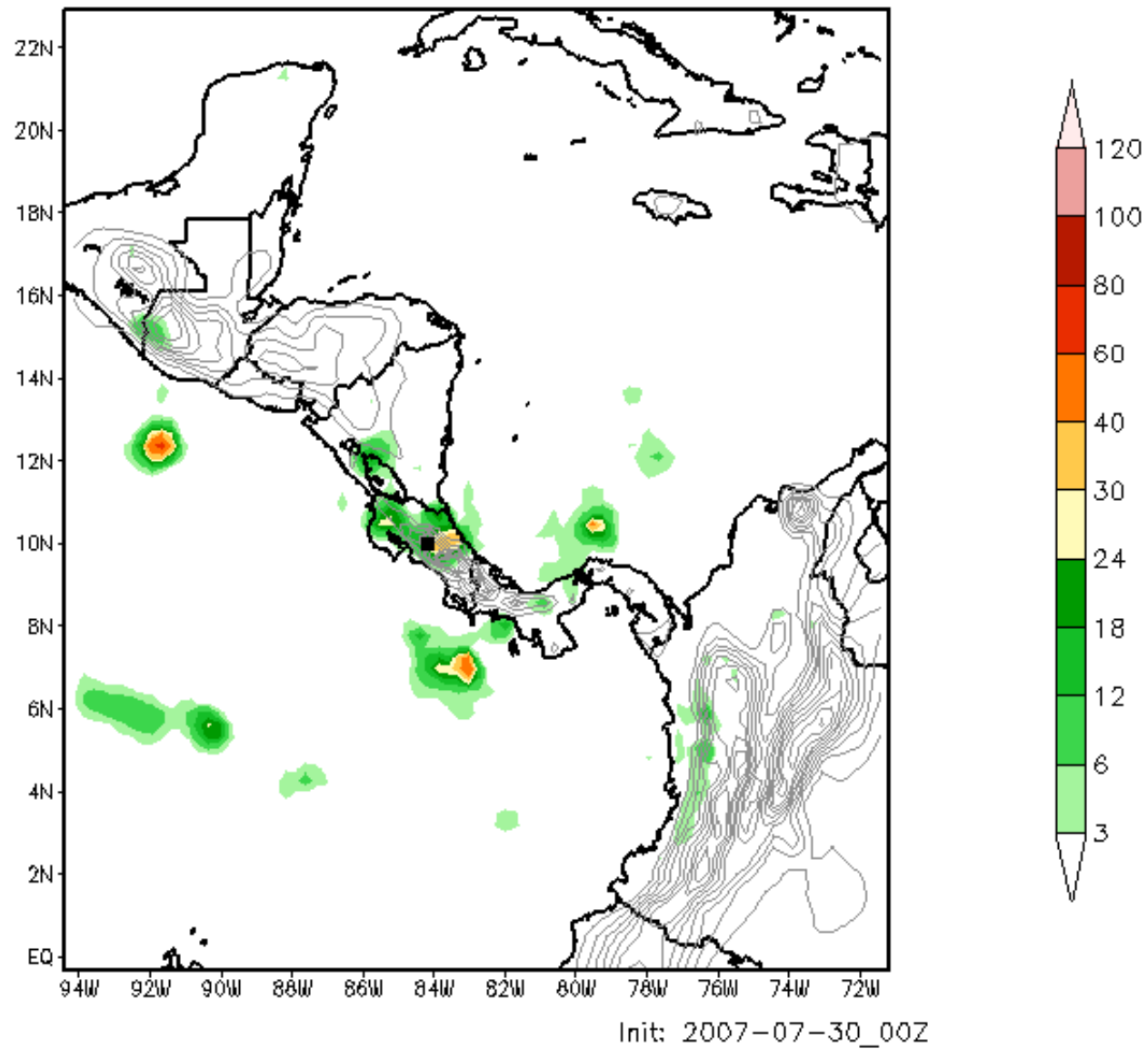
500 hPa Winds [knots] and Relative Humidity [%]
Valid: Tue 15z 2007-07-31 ($\tau = 39$)



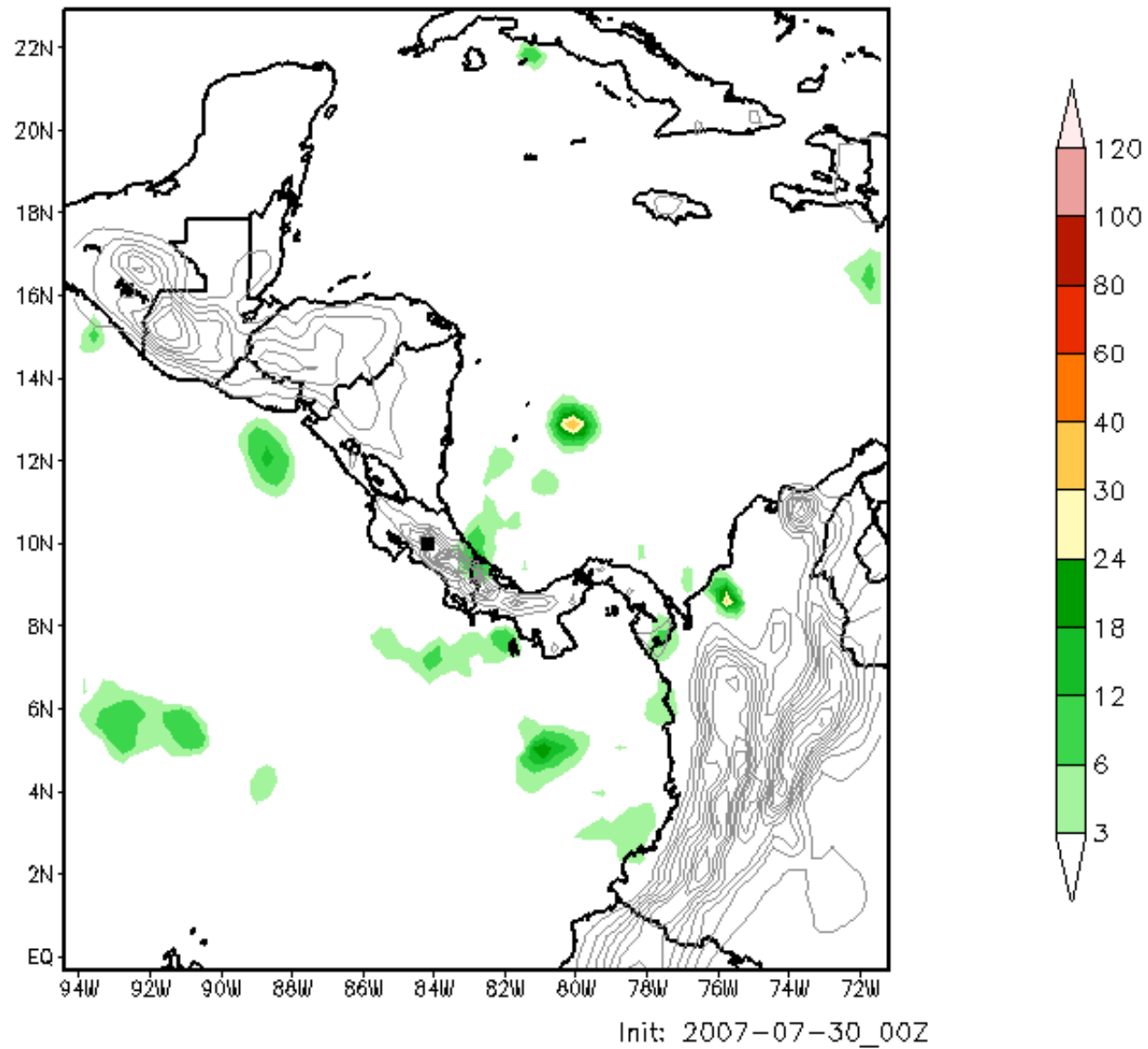
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-30_15Z



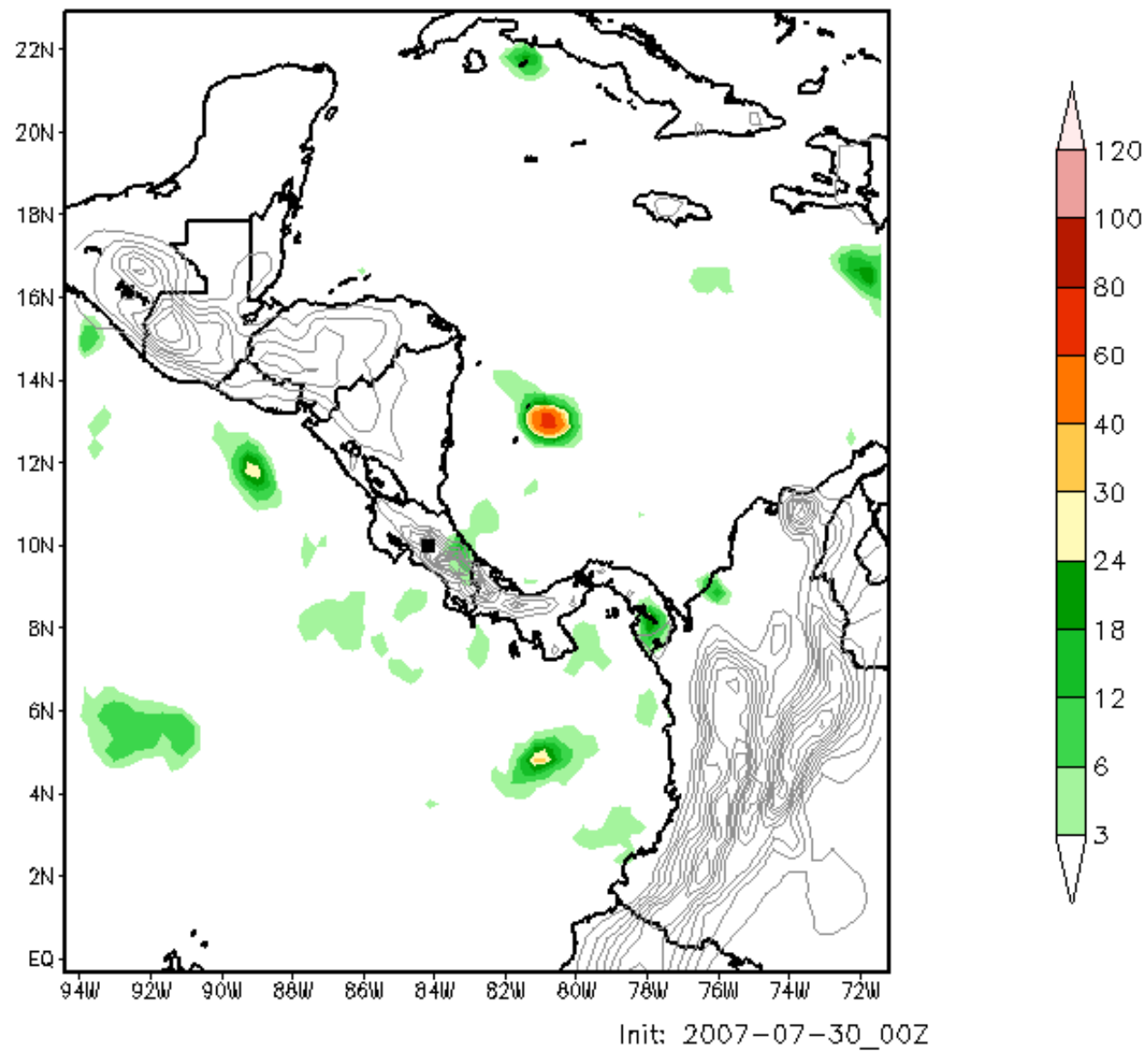
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_00Z



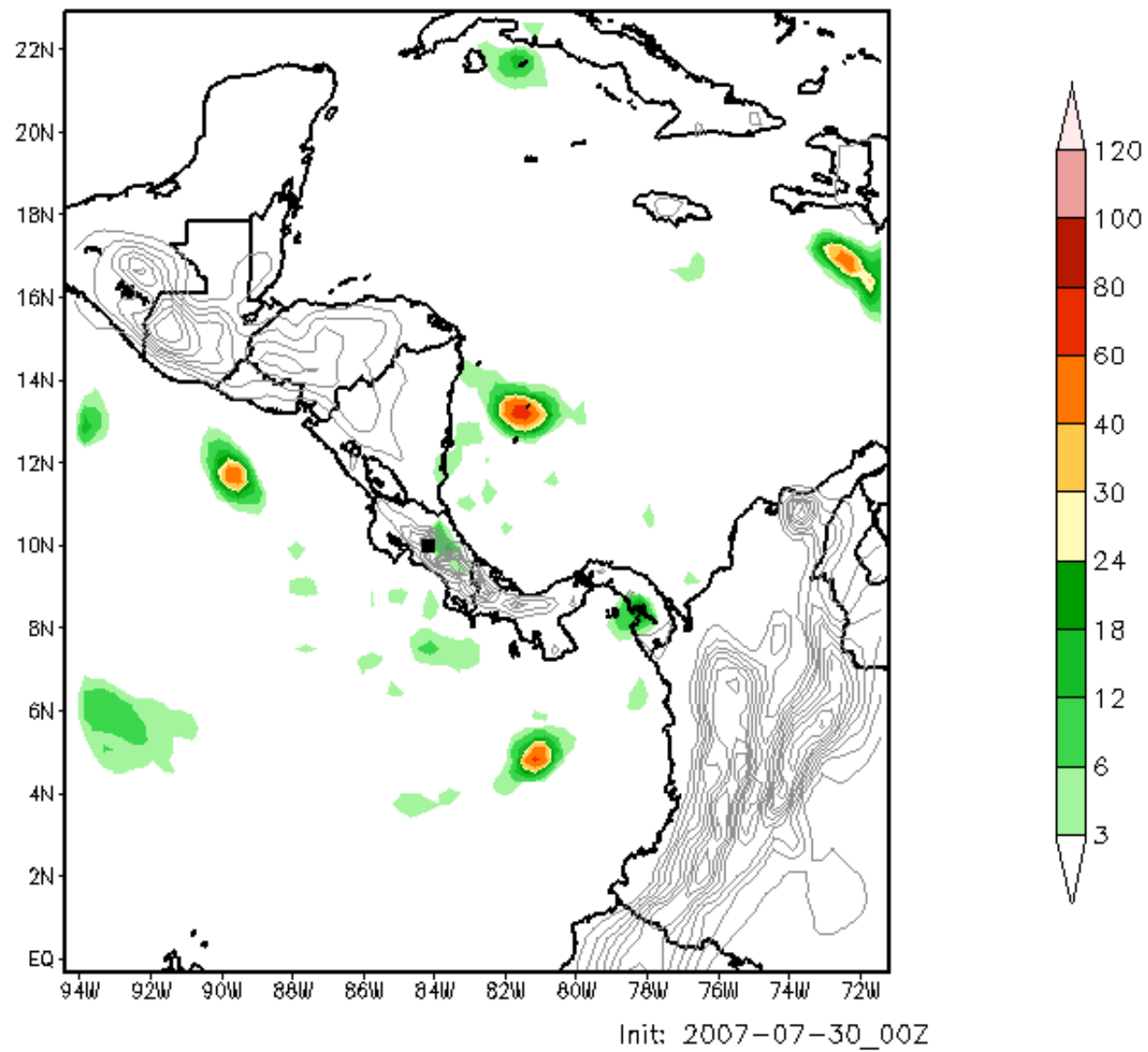
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_09Z



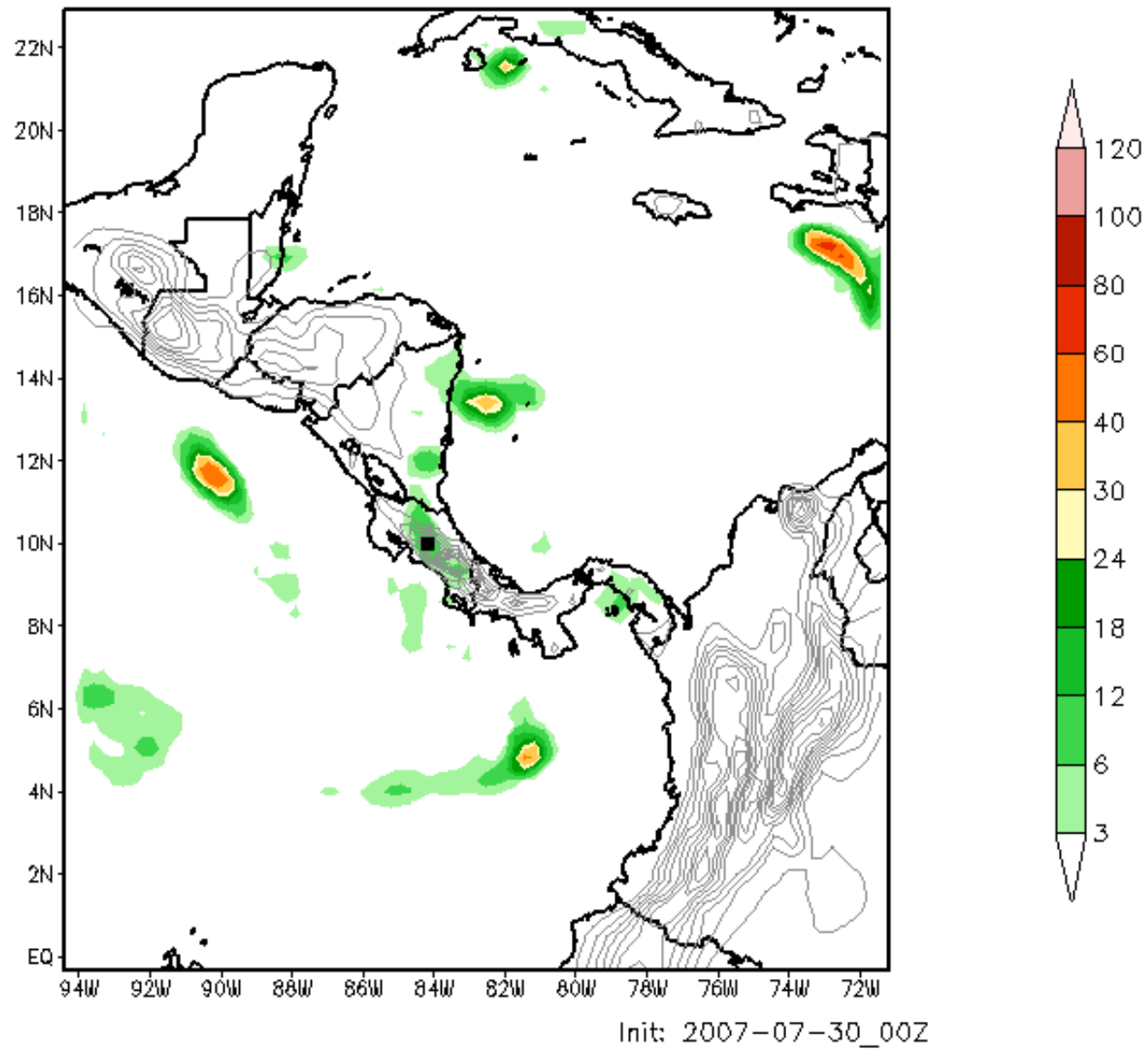
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_12Z



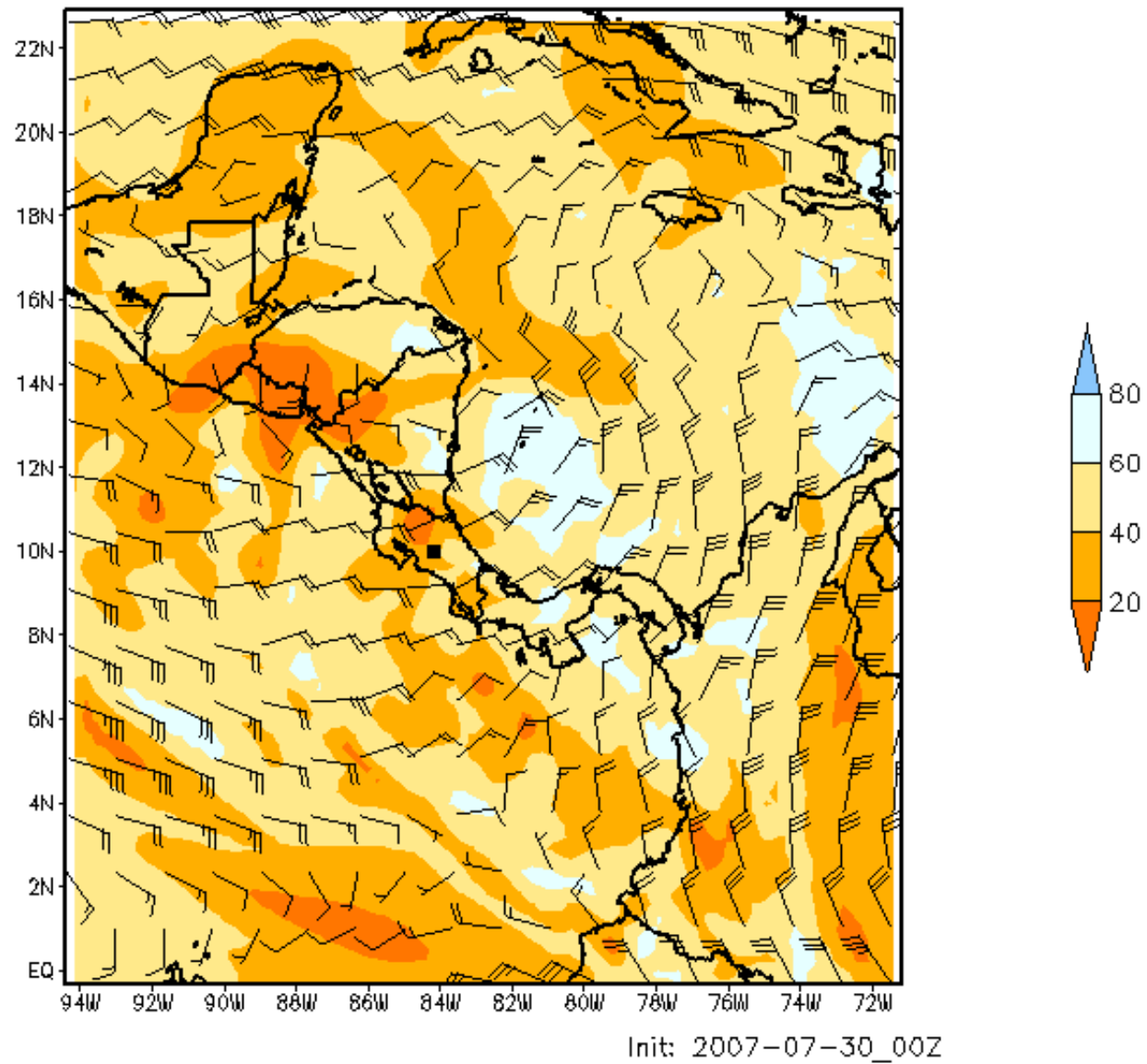
CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_15Z



CIGEFI/UCR MM5: Precipitation in past 3 hrs (mm)
2007-07-31_18Z



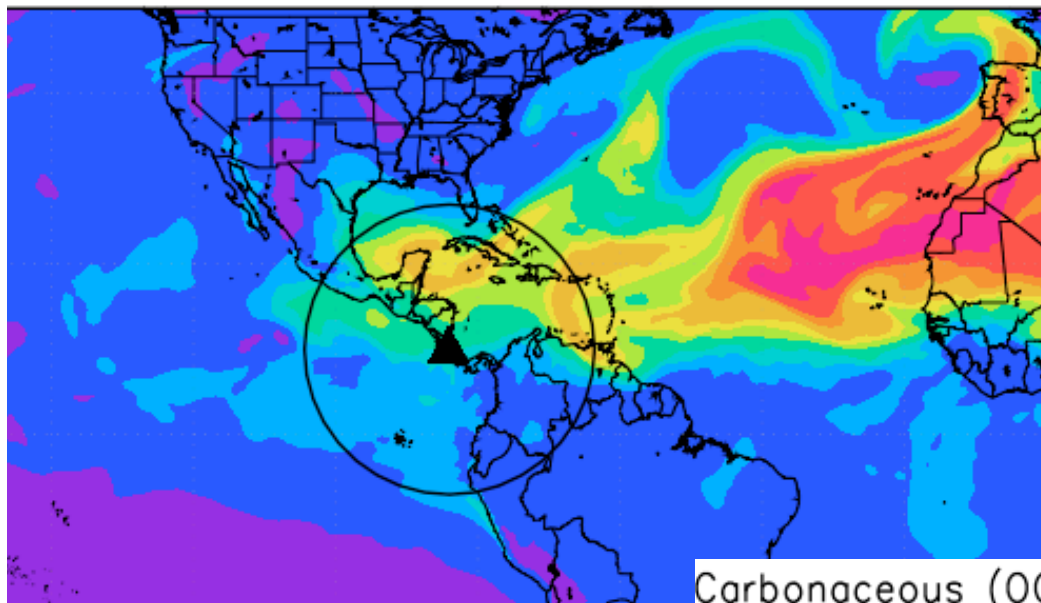
CIGEFI/UCR MM5: 200 mb Relative Humidity (%) and Wind (kt)
2007-07-31_15Z



So, what do we make of these forecasts?

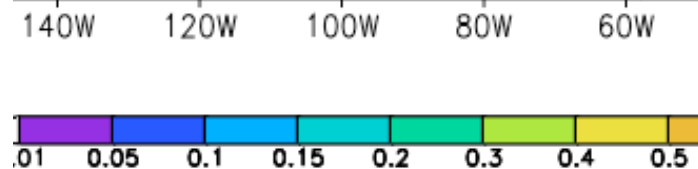
- A brief history since July 10 suggests that minor Panama bight convection usually follows a day of major convection -- rarely have we had nothing after a major day. We typically do not have two major days in a row.
- Disturbances often move west after a major day -- so convection south of Panama or CR not unreasonable tomorrow (GFS forecast)
- CIGEFI also shows westward movement (though Pacific convection is farther south)
- We don't believe the disturbance well off the coast of Nicaragua
- GEOS-5 model predicts coherent cyclonic circulation in the Panama bight.
- 200mb winds are not particularly favorable for blowoff. Forecast suggests the penetration of parts of the subtropical jet across the equator.
- Westerlies are already fairly far to the north, satellite winds are consistent with that.

Dust AOD [550 nm] on 16:30Z31JUL2007

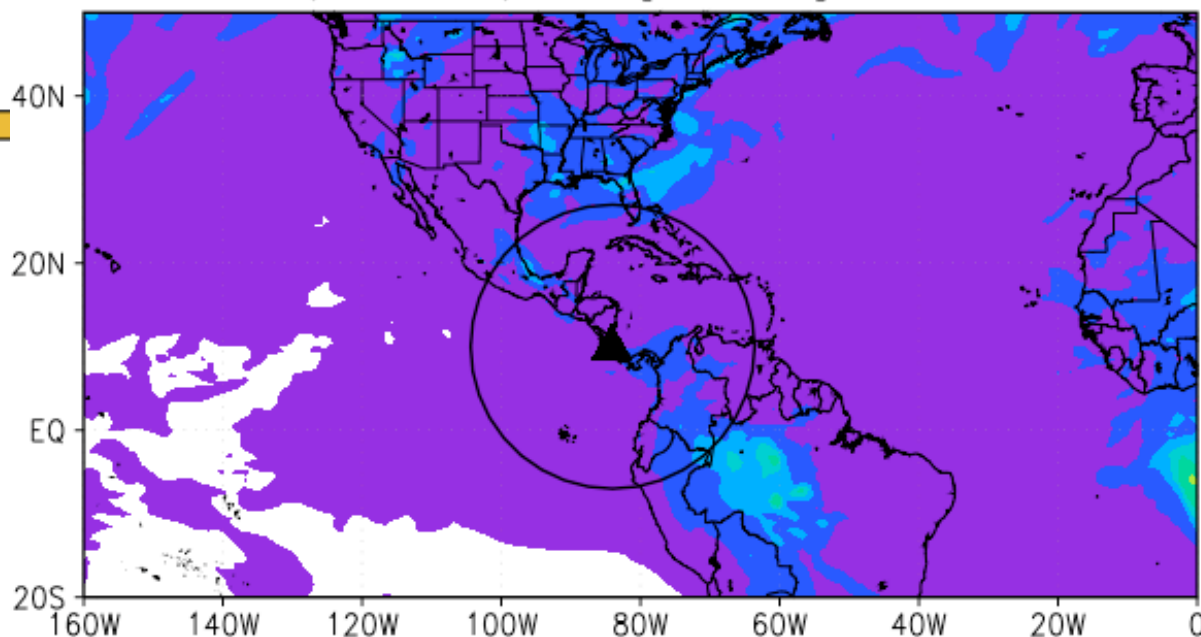


Aerosol Forecasts for Tuesday

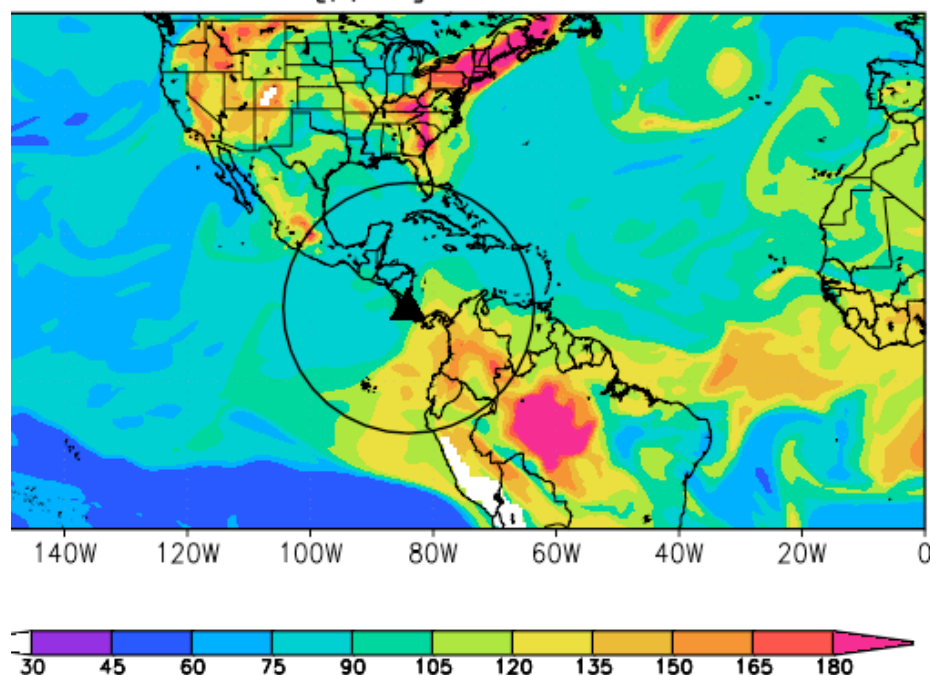
Carbonaceous (OC + BC) AOD [550 nm] on 16:30Z31JUL2007



Forecast from 30 July 00Z

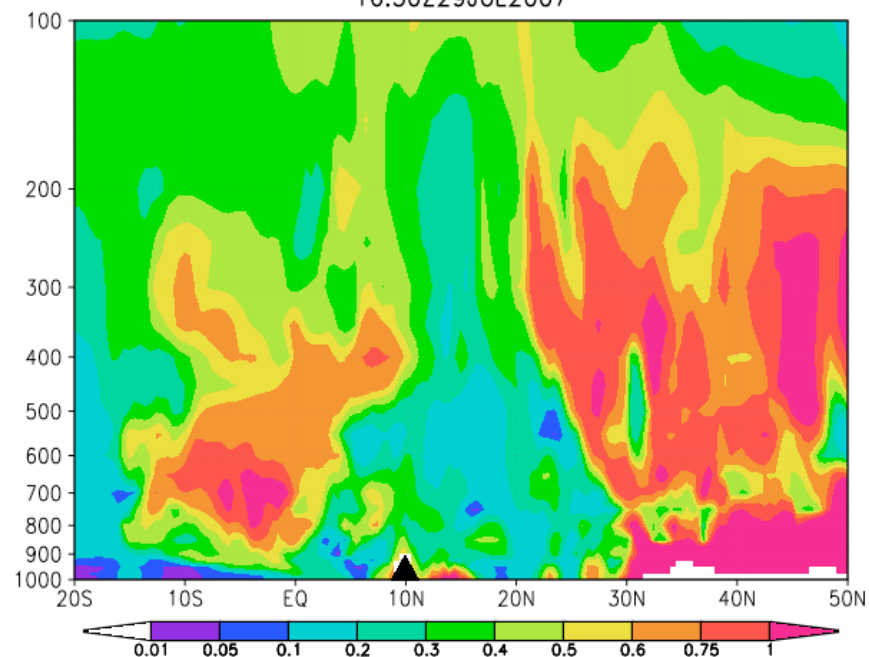


CO @ 700hPa [ppbV] on 16:30Z29JUL2007

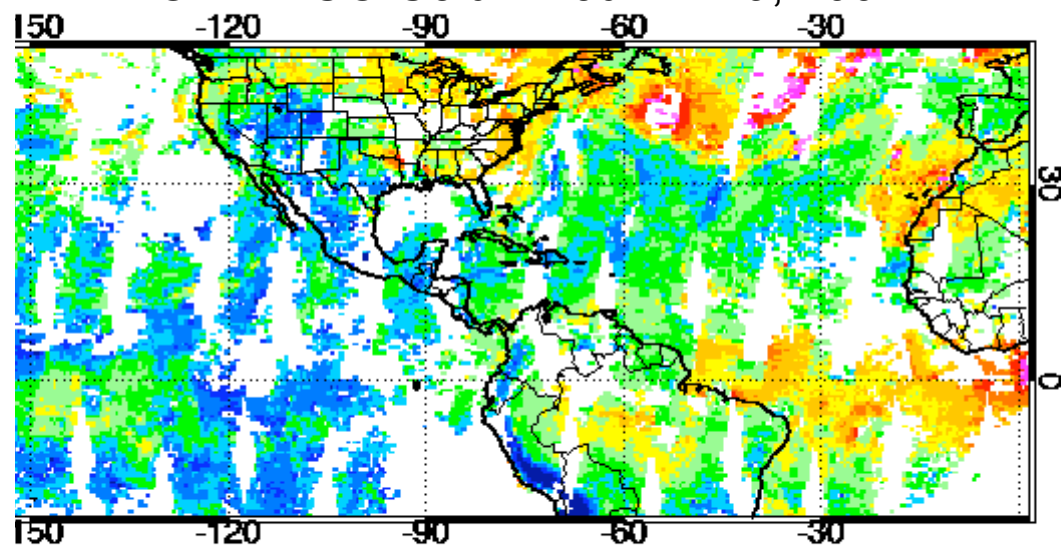


Forecast from 00Z Jul 28

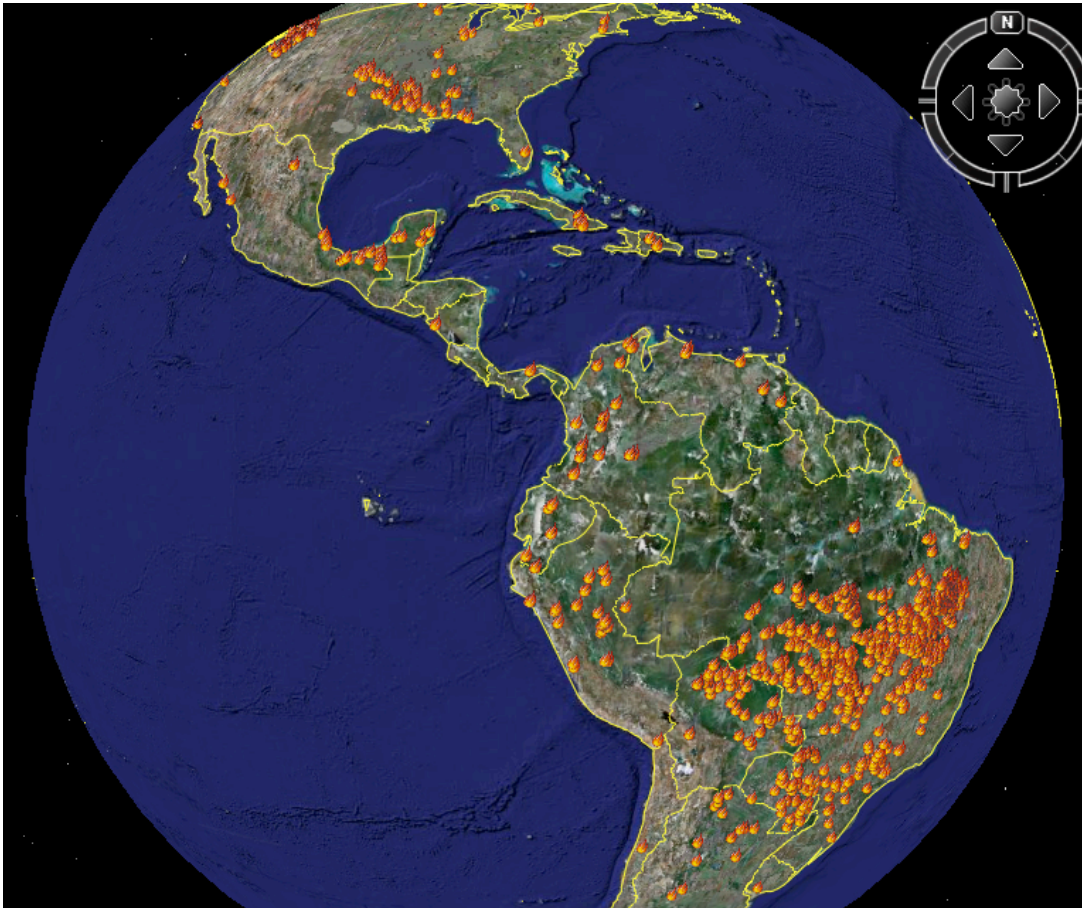
OC+BC Slice N-S of San Jose, Costa_Rico [ppbM]
16:30Z29JUL2007



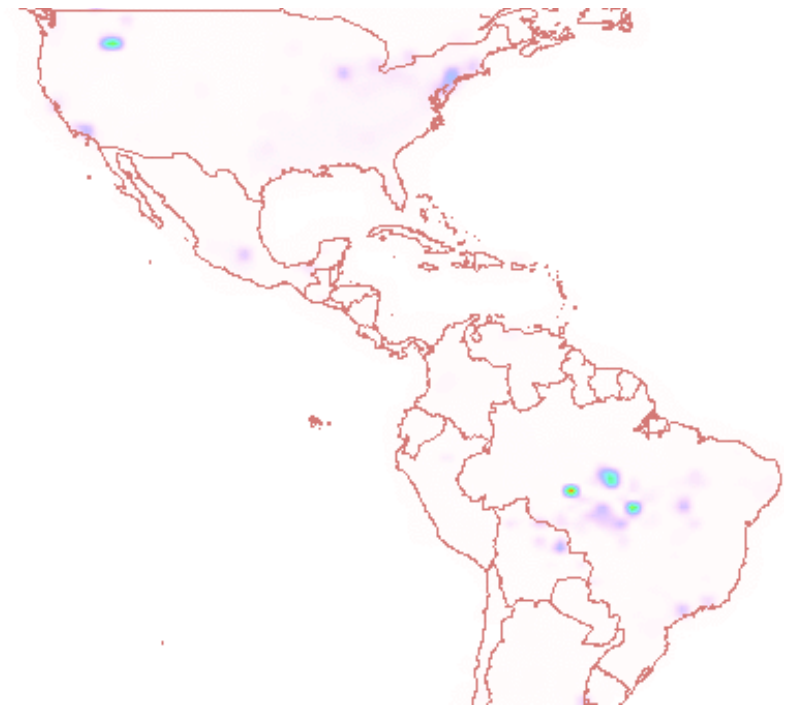
MOPITT CO Column Jul 27-29, 2007



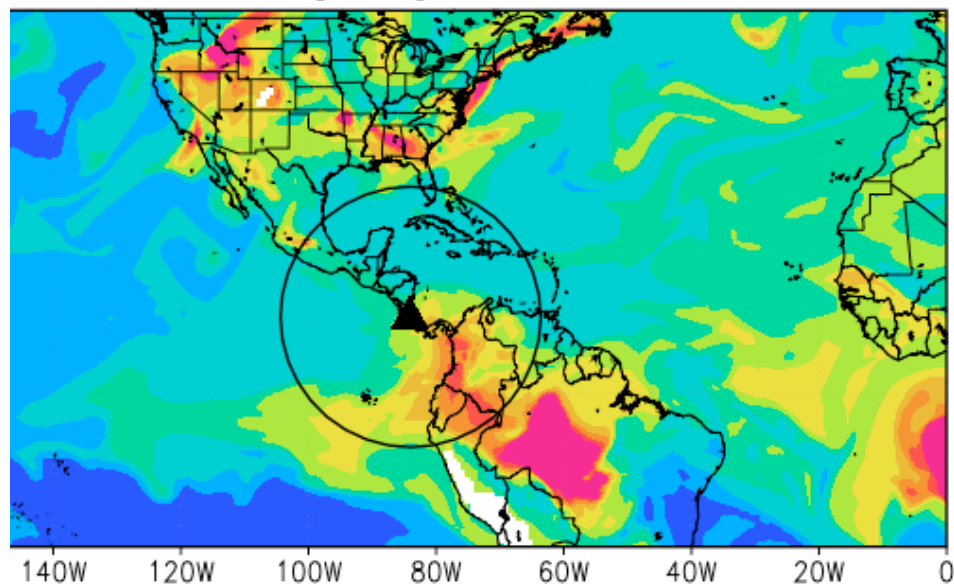
MODIS Fire Counts for past 24 hours



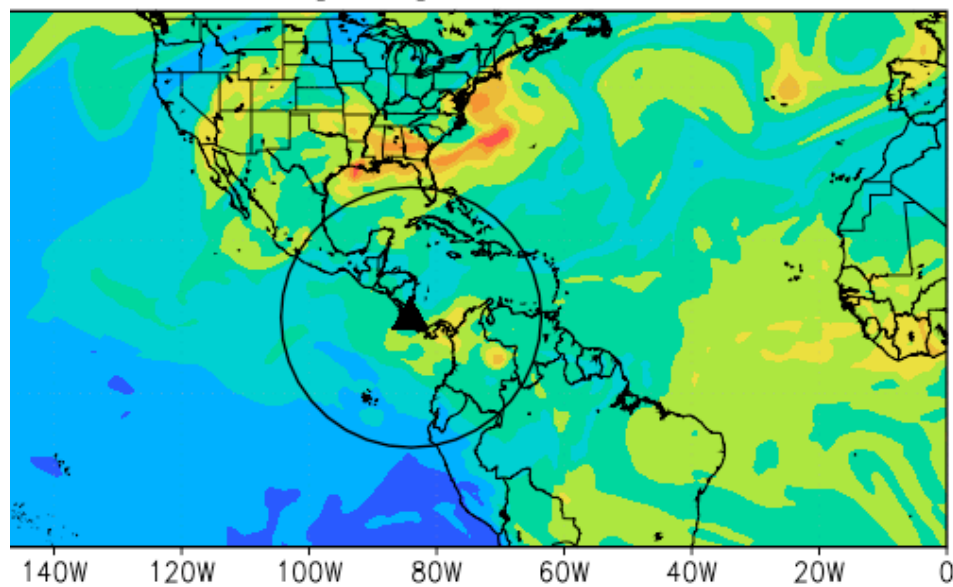
CTM BC Emissions



CO @ 700hPa [ppbV] on 16:30Z31JUL2007



CO @ 300hPa [ppbV] on 16:30Z31JUL2007



Forecast from 30 July 00Z